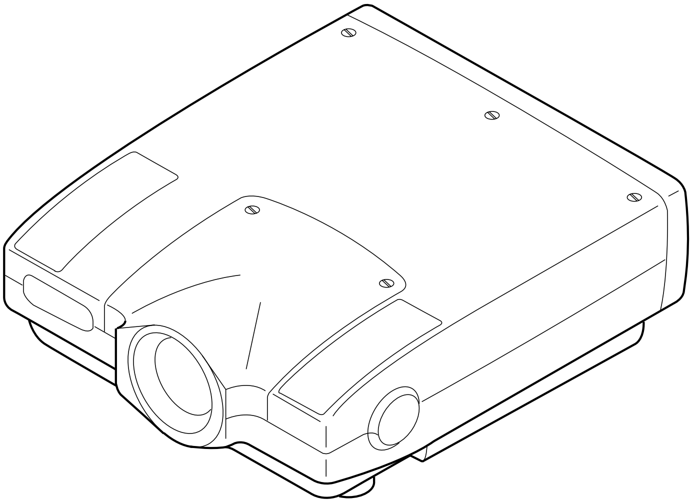
SERVICE MANUAL

MODEL	DEST.	MODEL	DEST.
VPL-FE110U	US/CND	PSS-2000	WORLD
VPL-FE110M	AEP/E	SU-PJ2000	WORLD



LCD DATA PROJECTOR

SONY®

⚠警告

このマニュアルは，サービス専用です。

お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。

危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.

Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠ AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

WARNING!!

AN INSULATED TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY A ⚠ MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION!!

AFIN D’ÉVITER TOUT RISQUE D’ÉLECTROCUTION PROVENANT D’UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D’ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L’ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÉCURITÉ!!

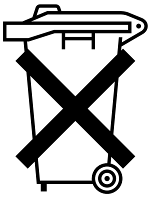
LES COMPOSANTS IDENTIFIÉS PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D’UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

Voor de klanten in Nederland

Dit apparaat bevat een CR1220 batterij voor memory back-up.

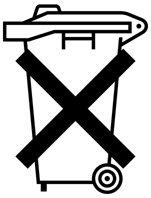
Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat bij einde levensduur afdankt.

Gooi de batterij niet weg. maar lever hem in als KCA.



Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

For the customers in the Netherlands
Voor de klanten in Nederland



Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacturer’s instructions.

Vorsicht!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie.

Ersatz nur durch denselben oder einen vom Hersteller empfohlenen ähnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

ATTENTION

Il y a danger d’explosion s’il y a remplacement incorrect de la batterie.

Remplacer uniquement avec une batterie du même type ou d’un type équivalent recommandé par le constructeur.
Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

ADVARSEL

Lithiumbatteri - Eksplosjonsfare.
Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverandøren.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en likvärdig typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt gällande föreskrifter.

VAROITUS

Paristo voi räjähtää jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

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gM

SONY

4-080-673-**11**(1)

LCD Data Projector

Operating Instructions

- The PDF data of the Operating Instructions, Installation Manual for Dealers and Projection Distane Charts (French, German, Spanish and Italian) are contained in the supplied CD-ROM. If you need a manual other than the English one, please read the data of the CD-ROM or print them out with a printer.
- When you use the CD-ROM, please read its “ReadMe” section, which introduces how to use the CD-ROM.

- Les données PDF du mode d’emploi, du manuel d’installation destiné aux revendeurs et tableaux des distances de projection (français, allemand, espagnol et italien) se trouvent sur le CD-ROM fourni. Si vous avez besoin d’une autre version du manuel que la version anglaise, consultez les données sur le CD-ROM ou imprimez-les au moyen d’une imprimante.
- Avant d’utiliser le CD-ROM, veuillez lire la section “ReadMe” qui vous explique comment exploiter le CD-ROM.

- El CD-ROM suministrado contiene los datos PDF de los manuales de instrucciones y de instalación para proveedores y de tablas de distancias de proyección (español, francés, alemán e italiano). Si necesita un manual que no sea el inglés, lea los datos del CD-ROM o imprímalos con una impresora.
- Cuando utilice el CD-ROM, lea su sección “ReadMe”, en la que se describe cómo emplear dicho CD-ROM.

- Die Bedienungsanleitung, die Installationsanleitung für Händler und die Projektionsentfernungstabellen (Französisch, Deutsch, Spanisch und Italienisch) befinden sich im PDF-Format auf der mitgelieferten CD-ROM. Wenn Sie nicht mit dem englischen Handbuch arbeiten möchten, lesen Sie bitte das Handbuch in der gewünschten Sprache auf der CD-ROM, oder drucken Sie es aus.
- Wie Sie die CD-ROM verwenden, ist unter “ReadMe” auf der CD-ROM beschrieben.

- Le istruzioni per l’uso e il manuale di installazione per i rivenditori e i diagrammi delle distanze di proiezione in formato PDF in lingua francese, tedesca, spagnola e italiana sono contenuti nel CD-ROM in dotazione. Se occorre una copia dei manuali non in lingua inglese, è possibile visualizzare i manuali del CD-ROM a video oppure stamparli.
- Se si utilizza il CD-ROM, leggere la sezione “ReadMe” che spiega come utilizzare il CD-ROM.

VPL-FE110U
VPL-FE110M

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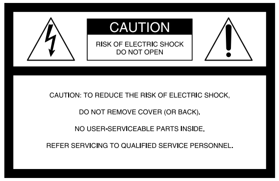
Section 1
Operating Instruction

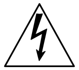
This section is extracted from operation manual.

WARNING

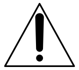
To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in the USA
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada
This Class A digital apparatus complies with Canadian ICES-003.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHED

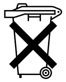
IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow : Earth
Blue : Neutral
Brown : Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Voor de klanten in Nederland

- Dit apparaat bevat een Li-ion batterij voor memory back-up.
- De batterij voor memory back-up van het geheugen is bevestigd op BT9001 van plaar QC.
- Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat bij einde levensduur afdankt.
- Gooi de batterij niet weg, maar lever hem in als KCA.
- Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.



The socket-outlet should be installed near the equipment and be easily accessible.

AVERTISSEMENT

Afin d’éviter tout risque d’incendie et d’électrocution, ne pas exposer l’appareil à la pluie ou à l’humidité.

Pour éviter tout risque de décharge électrique, ne pas ouvrir le boîtier. Confiez l’entretien uniquement à un personnel qualifié.

Pour les utilisateurs au Canada
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

La prise doit être près de l’appareil et facile d’accès.

ADVERTENCIA

Para evitar riesgos de incendio o electrocución, no exponga la unidad a la lluvia ni a la humedad.

Para evitar recibir descargas eléctricas, no abra el aparato. Contrate exclusivamente los servicios de personal cualificado.

La toma mural debe estar instalada cerca del equipo y debe accederse a ésta con facilidad.

ACHTUNG

Um Feuergefahr und die Gefahr eines eiektrischen Schlages zu vermeiden, darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur einem Fachmann.

Für Kunden in Deutschland
Dieses Produkt kann im kommerziellen und in begrenztem Maße auch im industriellen Bereich eingesetzt werden. Dies ist eine Einrichtung, welche die Funk-Entstörung nach Klasse B besitzt.

Entsorgungshinweis: Bitte werfen Sie nur entladene Batterien in die Sammelboxen beim Handel oder den Kommunen. Entladen sind Batterien in der Regel dann, wenn das Gerät abschaltet und signalisiert “Batterie leer” oder nach längerer Gebrauchsdauer der Batterien “nicht mehr einwandfrei funktioniert”. Um sicherzugehen, kleben Sie die Batteriepole z.B. mit einem Klebestreifen ab oder geben Sie die Batterien einzeln in einen Plastikbeutel.

Die Steckdose muß nahe bei diesem Gerät angebracht und leicht zugänglich sein.

AVVERTENZA

Per evitare il pericolo di incendi o scosse elettriche, non esporre l’apparecchio alla pioggia o all’umidità e non aprirlo.

Per eventuali riparazioni, rivolgersi esclusivamente a personale qualificato.

La presa di corrente deve essere situata vicino all’apparecchio e deve essere facilmente accessibile.

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Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.

On installation

- When the projector is mounted on the ceiling, the Sony PSS-2000 Projector Suspension Support must be used for installation.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 30 cm ($11\,{}^{7}/_{8}$ inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.
- Do not install the projector near to medical instruments when a LAN card is used. It may cause incorrect operations of the instruments.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

After turning off the power, the cooling fan runs for about six minutes while the ON indicator flashes in green. The indicator flashes quickly for one minute. During that time, you will not be able to turn the power back on with the ON key.

Caution

The projector is equipped with ventilation holes (intake) at the bottom/front side and ventilation holes (exhaust) at the left/right side.
Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the air filter in every 100 hours.

On repacking

Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

On LCD projector

LCD projector is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD projector. This is a normal result of the manufacturing process and does not indicate a malfunction.

Features

High brightness, high picture quality

• High brightness

Adopting four newly developed 120 W UHP lamps and a LCD panel with micro lens provides high brightness (light output 4,000 of ANSI lumen) and excellent uniformity on the picture.

• High resolution

Thanks to use of three 1.8-inch SXGA[1] panels with approximately 1,300,000 pixels, the projector can project the sharp picture with the resolution of 1280 × 1024 pixels.

• DRC (Digital Reality Creation)

The DRC technology allows you to obtain a finer, more detailed picture with four-times higher density than the conventional video picture.

Accepts various input signals

This projector has a built-in high performance scan converter which converts the input signals to display the 15 k RGB, DTV, HDTV, VGA[1], SVGA[1], XGA[1], SXGA[1] and UXGA[1] (fV = up to 75 Hz) signals as well as the video signals of the composite, S video and component.
The projector accepts a wide range of HDTV/DTV signals as shown in the chart below.

Format	Scanning rate (kHz)	Frame rate (Hz)*	Scanning format	Aspect ratio	Standard
1035/60i	33.75	30	2:1 interlace	16:9	BTA S-001B
1080/60i	33.75	30	2:1 interlace	16:9	SMPTE 274M/ BTA S-001B
480/60P	31.5	60	Progressive	16:9/4:3	SMPTE 293M
575/50P	31.25	50	Progressive	16:9/4:3	–
1080/24PsF	27	24	2:1 interlace	16:9	–
1080/50i	28.13	25	2:1 interlace	16:9	SMPTE 274M
720/60P	45	60	Progressive	16:9	SMPTE 293M
720/50P	37.5	60	Progressive	16:9	–

* Each of the frame rates is also compatible with 1/1.001.

System expandability and versatility

The projector has RS-232C/422A/PJ COM interface connectors for communication.
By combining the interface boards and signal interface switcher (not supplied), VPL-FE110U/FE110M projection systems can be greatly expanded. This projector also has the group and device index functions for using multiple projectors in one system.

Easy and flexible setup

• Easy setup with external equipment

This projector has 48 preset data for input signals in the memory. You can get a picture properly on the screen by connecting equipment and pressing Sony's original APA (Auto Pixel Alignment) key.

• Flexible setup

The lens shift function allows you to install the projector in a wide range of locations, without worrying about keystone distortion (the picture going out of square). The power focus and power zoom functions also let you change the size of the projection screen without having to move the projector.

• Stack installation

Thanks to the lens shift function, up to three projectors can be stacked, which improves the brightness of the image.

• Fail safe function

The projector uses four lamps for light source. Even if one of them has burnt out, you can still use the projector. If two lamps have burnt out, the projector will automatically enter into standby mode.

Selectable four lamps or two lamps

You can select four lamps for high brightness or two lamps for the long lamp lives. (For setting the lamp mode, consult with qualified Sony service personnel.)

Convenient network function

As the Microsoft[2] Windows[2] CE is built in the projector, you can connect the projector to LAN using an optional LAN/wireless LAN PC card.

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1) VGA, SVGA, XGA, SXGA and UXGA are the registered trademarks of the International Business Machines Corporation, U.S.A.
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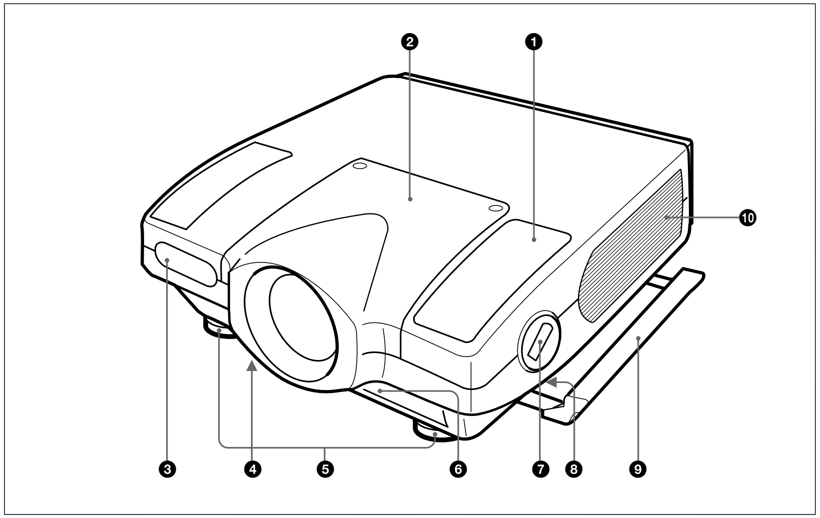
http://getMANUAL.com

Location and Function of Controls

Front



❶ **Speaker**

❷ **Lens mount part**
When attaching the optional lens, consult with the Sony service personnel.

❸ **Front remote control (SIRCS) detector**

❹ **Bottom ventilation holes (intake)**
Do not block the holes.

❺ **Adjusters**
Use the adjusters to keep the projector level if it is installed on an uneven surface.

❻ **Front ventilation holes (intake)**
Do not block the holes.

❼ **Adjuster button and lever**
Press the button to raise the lever for adjusting the height of the adjuster.

❽ **Handle lever (left and right sides)**
Use the lever for putting away the carrying handle.

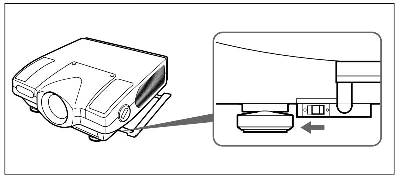
❾ **Carrying handle (left and right sides)**
Pull out the handle for carrying the projector.

❿ **Left and right side ventilation holes (exhaust)**
Do not place anything within the 30 cm (11 $^{7}/_{8}$ inches) range from these holes or block them.

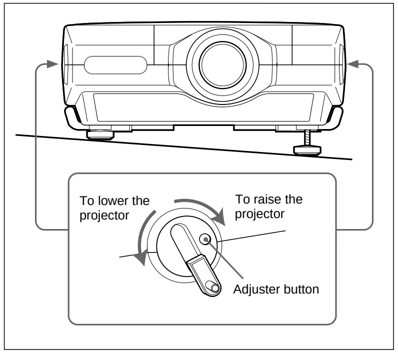
Notes
- Do not block the ventilation holes, or internal heat build-up may occur, causing fire or damage to the projector.
- Do not place anything near the ventilation holes or touch these holes as the temperature will be very high.

Using the carrying handles

Pull out to use for carrying the projector. To put away the handle, slide the handle lever forward.



Using the adjusters

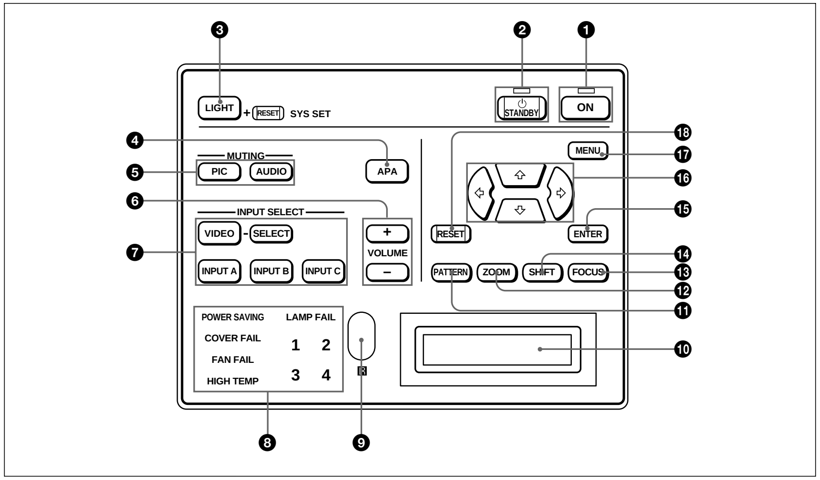


1 Press the adjuster button.
The adjuster lever comes out.

2 Turn the lever to adjust the height so that the projector becomes level.

3 Replace the adjuster lever after use.

Control panel



❶ ON key and indicator
Press to turn on the power of the projector.
The indicator lights when the key is pressed.
The indicator flashes for about six minutes after the power is turned off by pressing the STANDBY key, as the fan runs for six minutes to cool down the inside of the projector. The indicator flashes quickly for one minute, during which you will not be able to turn the power back on with the ON key.

❷ STANDBY key and indicator
Press to make the projector enter standby mode.
The indicator lights to indicate that the projector is in standby mode.

❸ LIGHT key
Illuminates the key indicators in orange when the projector is turned on. Illuminates the indicators for the relative keys in green when this key is pressed during operation. Press again to turn off the indicators.

Pressing this key and the RESET key simultaneously has the same function as the SYS SET key on the Remote Commander. Use when the PC-3000 signal interface switcher is used in the system or the system connections are changed.

❹ APA (Auto Pixel Alignment) key
Adjusts the position of the picture on the screen automatically so that the picture is clearly visible when the signals are input from a computer.

❺ MUTING keys
Cut off the picture or sound temporarily.
PIC: Press to cut off the picture. Press again to restore the picture.
AUDIO: Press to cut off the sound output from the speakers or the AUDIO OUT jacks. Press again or press the VOLUME + key to restore the sound.

❻ VOLUME +/– keys
Adjust the volume of the built-in speakers and output level of the AUDIO OUT jacks.
+ : Increases the volume.
– : Decreases the volume.

❼ INPUT SELECT keys
Select the input signal.
VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the S VIDEO and VIDEO connectors, use the SELECT key.
SELECT: Each time you press this key, the input video signal is switched between the VIDEO and S VIDEO connectors.
INPUT A: Selects the audio and video signals input from the INPUT A connectors.
INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section. When the IFB-12A interface board is installed and the output mode is selected on the IFB-12A, the key does not function.
INPUT C: Selects the Windows CE.

Note
When the INPUT C/RS-232C/RS-422A select switch is not set to INPUT C, the image from the INPUT C slot does not appear.

❽ Indicators
POWER SAVING: Lights when the projector is in power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, only the STANDBY key functions for the first 60 seconds. The power saving mode is canceled when a signal is input or any key is pressed.
COVER FAIL: Lights when the lamp cover or air filter cover is not secured firmly.
FAN FAIL: Lights when the fan is broken.
HIGH TEMP: Lights when temperature inside the projector becomes unusually high.
LAMP FAIL: When the lamp life has reached the end, the indicator of that lamp lights.

❾ Rear remote control (SIRCS) detector

❿ Message display window
Displays the signal status, timer and error messages about the input signals.

⓫ PATTERN key
Displays a HATCH pattern on the screen for focus, zoom, and shift adjustments. Press again to turn off the HATCH pattern.

⓬ ZOOM key
Enters the zoom adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the zoom using the arrow keys.
⬆, ➡: Enlarges the picture size.
⬇, ⬅: Reduces the picture size.

Note
If the VPLL-2075, VPLL-2014, VPLL-2009 or VPLL-3050 optional lens is installed, you cannot adjust the zoom.

⓭ FOCUS key
Enters the focus adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the focus using the arrow keys.
⬆, ➡: Focuses on a forward picture.
⬇, ⬅: Focuses on a picture further back.

⓮ SHIFT (lens shift) key
Enters the shift adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the vertical position of the picture using the arrow keys.
⬆, ➡: Moves the picture upward.
⬇, ⬅: Moves the picture downward.

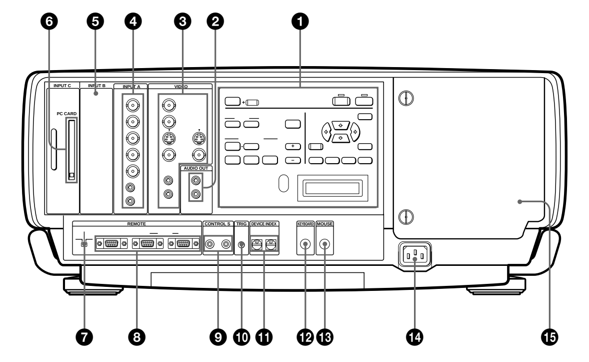
⓯ ENTER key
Stores the settings in the menu.

⓰ Arrow keys (⬆/⬇/⬅/➡)
Used to adjust the picture after pressing the ZOOM, FOCUS or SHIFT key. Also used to move the cursor or adjust the value in the menu.

⓱ MENU key
Displays the menu on the screen. When the key is pressed, the relative keys light in green.
Press again to turn off the menu.

⓲ RESET key
Resets the adjusted value of an item to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

Rear



❶ Control panel
For details, see pages 10 and 11.

❷ AUDIO OUT L/R jacks (phono type)
Connect to external active speakers.
The volume of the speakers can be controlled by the VOLUME keys on the Remote Commander or the control panel.

❸ VIDEO connectors
Connect to external video equipment, such as a VCR.

- **Y IN/C IN (BNC type):** Connect to the Y and C video outputs of the video equipment.
- **S VIDEO IN (mini DIN 4-pin):** Connects to the Y/C video output of the video equipment.
- **S VIDEO OUT (mini DIN 4-pin):** Used as loop-through output via the Y/C IN connectors or the S VIDEO IN connector.
- **VIDEO IN (BNC type):** Connects to the composite video output connector of the video equipment.
- **VIDEO OUT (BNC type):** Used as loop-through output of the VIDEO IN connector.
- **AUDIO IN L (MONO)/R jacks (phono type):** Connect to the audio output jacks of equipment, such as a VCR. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
If you have video equipment connected to both the Y/C IN and S VIDEO IN connectors, the signal from the Y/C IN connectors are selected prior to the S VIDEO IN connector. When projecting video connected to the S VIDEO IN connector, be sure not to connect any cable to the Y/C IN connectors.

❹ INPUT A connectors

- **RGB input connectors (R/R-Y/P_R, G/Y, B/B-Y/P_B, SYNC/HD, VD) (BNC type):** Connect to the video outputs of equipment such as a computer or a video camera.
  According to the connected equipment, the RGB, component (R-Y, Y, B-Y), HDTV (YP_BP_R or GBR) or DTV (YP_BP_R or GBR) signal is selected.
- **AUDIO IN L (MONO)/R jacks (phono type):** Connect to the audio output jacks of equipment such as a computer or a video camera. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note
The INPUT A connectors do not function when the PC-3000 signal interface switcher is connected.

❺ Signal interface board attachment part (INPUT B)
Optional signal interface board can be attached according to your requirements. If you install the IFB-12A interface board to this section and select the output mode, you can output the signal input through the INPUT A connectors.
For details on installing the interface boards, consult with qualified Sony personnel.

❻ PC card slot (INPUT C)(Type II)
The recommended LAN PC card or memory card can be attached according to your requirements.
For details, please read the attached “Operating Instructions for Networking.”

Note
You cannot output the signal input through the INPUT C from the INPUT B connectors (even when the IFB-12A interface board is installed to INPUT B.)

❼ INPUT C/RS-232C/RS-422A select switch
Selects according to the interface connected to the INPUT C or RS-232C/RS-422A connector.

❽ REMOTE connectors
Used to expand system capability.

- **RS-232C/RS-422A connector (D-sub 9-pin, female):** Connect to a computer to operate the projector from the computer.
- **PJ COM IN/OUT connectors (D-sub 9-pin, female):** The connectors conform to the RS-485 standards and are used to expand system capability for Sony projectors.

For details on connections, see the PJ COM protocol manual for Sony projectors.

Note
When the INPUT C/RS-232C/RS-422A select switch is set to INPUT C, you cannot use the PJ COM IN/OUT connectors.

❾ CONTROL S IN/OUT jacks (stereo minijack)
Connect to the control S jacks of other Sony equipment.

- **CONTROL S IN/PLUG IN POWER (DC 5 V output) jack:** Connects to the CONTROL S OUT jack of the supplied Remote Commander when using as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.
- **CONTROL S OUT jack:** Outputs the control S signal.

Note
When connecting the remote commander cable to the CONTROL S IN jack, the remote control detectors will not function.

❿ TRIG (trigger output) jack (monaural minijack)
The signal is transmitted from this jack to the connected equipment whether the projector is on or off. (This is not a power source for external equipment.) Approximately 12 V DC signal is output when the projector power is on. The signal is 0 volt level output when the projector power is off.

⓫ DEVICE INDEX switch
Set the device index number of the projector when using multiple projectors. You can set the numbers between “01” and “99”. It is set to “01” at the factory. You can also set the group index number in the menu for system setup.

Note
Do not set the device index number to “00”. If you do, the projector will be operated only with the keys on the control panel.

⓬ KEYBOARD connector (PS/2, mini DIN 6-pin)
Connect a keyboard. This connector functions when the INPUT C/RS-232C/RS-422A select switch is set to INPUT C and the INPUT C signal is selected.

Note
Connect the keyboard before the power of the projector is turned on.

⓭ MOUSE connector (PS/2, mini DIN 6-pin)
Connect a mouse. This connector functions when the INPUT C/RS-232C/RS-422A select switch is set to INPUT C and the INPUT C signal is selected.

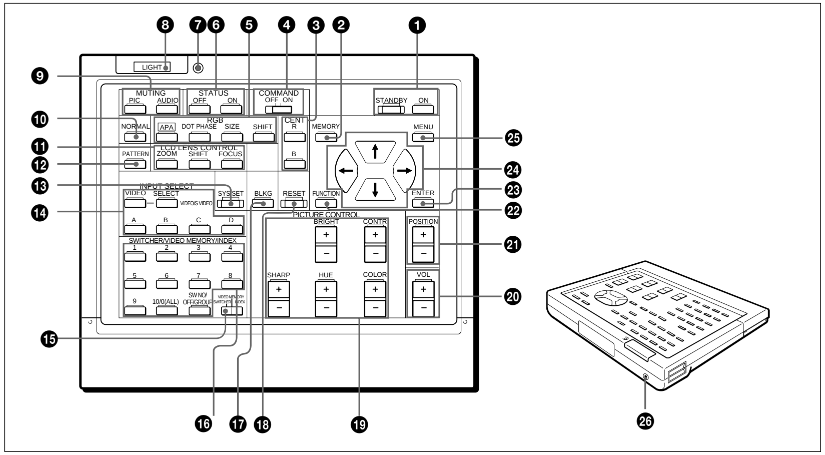
Note
Connect the mouse before the power of the projector is turned on.

⓮ AC IN socket
Connect the supplied AC Power cord.

⓯ Lamp cover

Remote Commander

The Remote Commander can be used as a wireless or wired Remote Commander. The keys on the Remote Commander with the same names function the same as those on the control panel of the projector.
For details on control panel keys on the projector, see pages 10 and 11.



① **ON/STANDBY keys**

② **MEMORY key**
This key does not function with this projector.

③ **CENT R/B keys**
The keys do not function with this projector.

④ **COMMAND ON/OFF key**
No keys except for the LIGHT button on the Remote Commander function when this switch is set to OFF. This saves battery power.

⑤ **RGB keys**
Adjust the picture.

APA: The key functions the same as the APA key on the control panel.

DOT PHASE: Press to adjust the phase of the LCD panels and the input signals (except for 15k RGB/video/HDTV/DTV signals). After pressing this key, adjust the position of the picture using the four arrow keys so that the clearest picture is obtained.

SIZE: Enters the size adjustment mode for the input signal. Next adjust the horizontal size of the picture using the arrow keys.
←: to reduce horizontal size
→: to expand horizontal size

SHIFT: Enters the shift adjustment mode for the input signal. Next adjust the position of the picture using the four arrow keys. The picture shifts in the direction of the arrow on the pressed key.

⑥ **STATUS ON/OFF keys**
Press OFF to eliminate the on-screen display.
Press ON to restore the on-screen display.

Note
The menus and warning messages appear even if the OFF key is pressed.

⑦ **Transmission indicator**
The light goes on each time a key is pressed. If the indicator does not light, replace the batteries.

⑧ **LIGHT button**
Illuminates the key indicators when the COMMAND switch is set to ON. If the switch is set to OFF, only the COMMAND switch is illuminated.
If you do not press any key on the Commander for more than 30 seconds, the key indicators turn off automatically. The indicators also turn off if you press the LIGHT button again.

⑨ **MUTING keys**

⑩ **NORMAL key**
The key does not function with this projector.

⑪ **LCD LENS CONTROL keys**
Press one of the ZOOM, SHIFT and FOCUS keys and then the arrow keys (↑ or ↓).

⑫ **PATTERN key**

⑬ **SYS SET (system set) key**
When the PC-3000 signal interface switcher is used in the system or the system connections are changed, press this key.

Note
After connecting the PC-3000 switcher and pressing the SYS SET key, the input channel is set to SW1-1 when connecting a single switcher, or to SW1-2 when connecting two or more switchers.

⑭ **INPUT SELECT keys**
The D key does not function with this projector.

⑮ **SWITCHER/VIDEO MEMORY/INDEX select switch**
Selects the function of the SWITCHER/VIDEO MEMORY/INDEX keys.

SWITCHER: selects the input from the PC-3000 switcher.

VIDEO MEMORY: The position does not function with this projector.

INDEX: selects a projector by its index number when multiple projectors are used.

⑯ **SWITCHER/VIDEO MEMORY/INDEX keys**

When **the SWITCHER/VIDEO MEMORY/INDEX select switch** is set to **SWITCHER**

When the PC-3000 switcher is connected to the projector, press a number key (1 to 8) to select the input from the switcher. Number key 9 does not function.
To select an input when multiple switchers are connected, press the SW NO/OFF/GROUP key. Next press the switcher number (1 to 8) and the input number (1 to 8) in sequence. Be sure to press the keys one after another within 2 seconds.
e.g. To select input 4 of switcher 2, press the keys as follows: SW NO → 2 → 4.

When **the SWITCHER/VIDEO MEMORY/INDEX select switch** is set to **INDEX**

Used to specify the device or group index number.

⑰ **BLKG (blanking) adjustment key**
Enters the blanking adjustment mode.
Next, press the ↑/↓ key to select the position to be adjusted on the screen, and then adjust the position using the ←/→ keys.

⑱ **RESET key**
Press the FUNCTION key and then RESET key on the Remote Commander within 5 seconds to reset the Windows CE.

⑲ **PICTURE CONTROL +/– keys**
Adjust the picture conditions: CONTR (contrast), BRIGHT (brightness), COLOR, HUE and SHARP (sharpness).

⑳ **VOL (volume) +/– keys**

㉑ **POSITION +/– keys**
These keys do not function with this projector.

㉒ **FUNCTION key**
Press the FUNCTION key and then RESET key on the Remote Commander within 5 seconds to reset the Windows CE.

(continued)

㉓ ENTER key

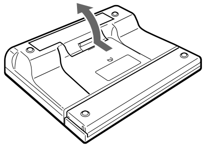
㉔ Arrow keys

㉕ MENU key

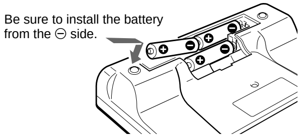
㉖ CONTROL S OUT jack
Connect the supplied remote control cable to this jack and to the CONTROL S IN jack of the projector for wired remote control operation.
When the Commander is connected to the CONTROL S IN/PLUG IN POWER jack of the projector via the remote control cable (stereo), the power for the Remote Commander is supplied from the projector.

Battery installation

1 Push to open the lid.



2 Install three R6 (size AA) batteries (supplied) with the polarities correctly aligned.

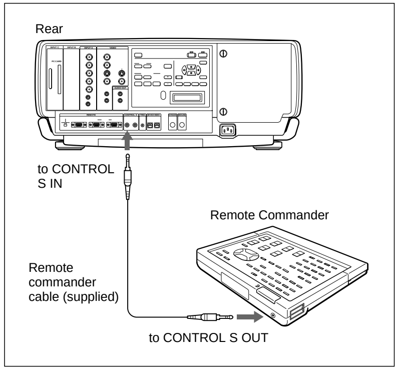


3 Replace the lid.

Notes on batteries
- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix old battery with new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on wireless Remote Commander operation
- Be sure that there is nothing to obstruct the infrared beam between the Remote Commander and the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector, the wider the angle within which the commander can control the projector.
- The remote control detectors on the projector do not operate when connecting the remote commander cable to the CONTROL S IN jack. If you wish to use the Remote Commander as a wireless Remote Commander, be sure to remove the remote commander cable from both the Remote Commander and the projector.

To connect the Remote Commander to the projector

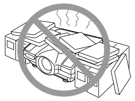


Note on wired Remote Commander operation using the supplied remote commander cable (stereo)
You do not need to install the batteries since the power is supplied from the CONTROL S IN jack on the projector. In this case, the batteries are not consumed.

Precautions on Installation

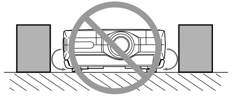
Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Do not install the projector in an ill-ventilated place



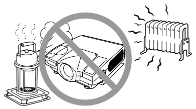
The projector is equipped with ventilation holes for intake on the bottom and front and ventilation holes for exhaust on the left and right sides to prevent internal heat build-up. Do not block these ventilation holes and allow adequate air circulation at an installation location.

Do not place any object beside the projector

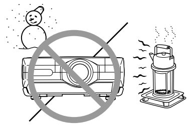


If you put something beside the ventilation holes on the sides, the exhaust may be inhaled into the projector through the ventilation holes (intake) at the bottom, causing the internal temperature to rise and thereby activating the protection circuit. Install the projector so that the exhaust is not blocked.

Do not install the projector in a location where temperature or humidity is very high

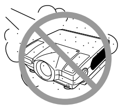


Avoid installing the projector in a location where temperature may rise or fall rapidly

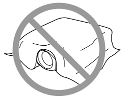


Be careful of air-conditioning and heating in a room where the projector is installed, as sudden changes in temperature may lead to moisture condensation and cause damage to the projector.

Avoid installing the projector in a location subject to excessive dust

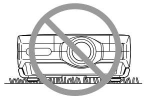


Do not cover the ventilation holes (exhaust)



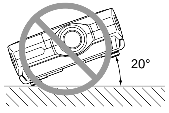
Do not cover the front ventilation holes; otherwise, internal heat may build up.

Do not install the projector on a deep-pile carpet

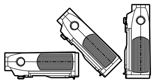


If you install the projector on a deep-pile carpet, the ventilation holes (intake) at the bottom may be blocked, causing an internal heat build-up.

Do not tilt the projector more than 20 degrees



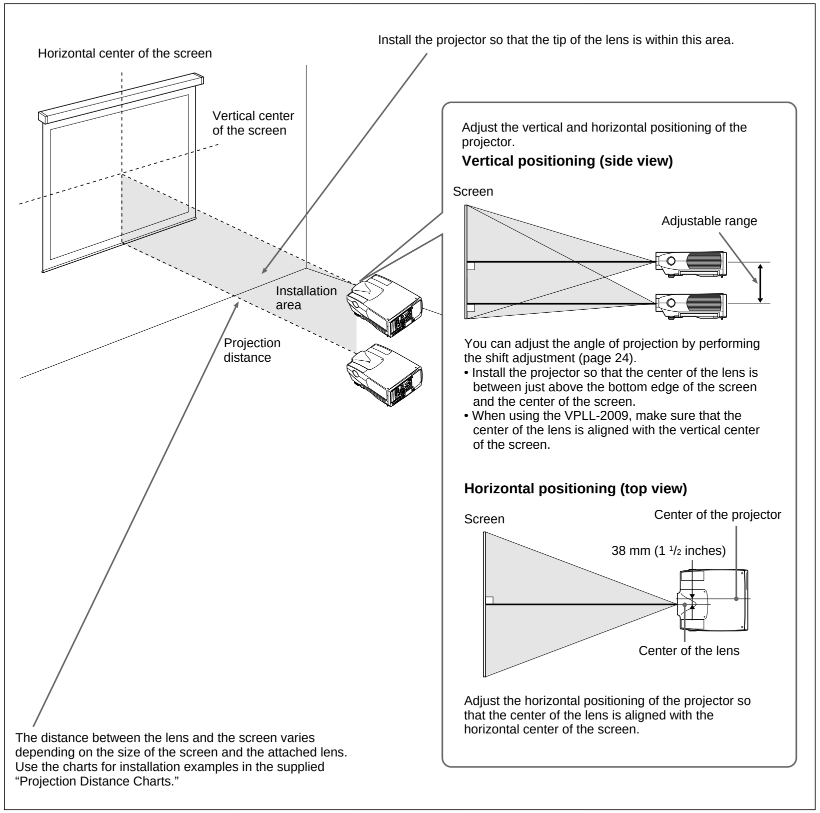
Avoid tilting the projector side to side more than 20 degrees or installing it other than on the floor or ceiling. Such installations may cause malfunctions such as color irregularity or shortening of lamp life.



The front to back tilt angle of this projector is not limited.

Installing the Projector on the Floor

This section describes the installation arrangements for installing the projector on the floor.
For ceiling installation, consult with qualified Sony personnel.
For details on installation examples with projection distances, see the supplied "Projection Distance Charts."


Horizontal center of the screen
Install the projector so that the tip of the lens is within this area.
Vertical center of the screen
Installation area
Projection distance
Screen
Adjustable range
Screen
Center of the projector
38 mm (1 1/2 inches)
Center of the lens

Adjust the vertical and horizontal positioning of the projector.

Vertical positioning (side view)

You can adjust the angle of projection by performing the shift adjustment (page 24).
- Install the projector so that the center of the lens is between just above the bottom edge of the screen and the center of the screen.
- When using the VPLL-2009, make sure that the center of the lens is aligned with the vertical center of the screen.

Horizontal positioning (top view)

Adjust the horizontal positioning of the projector so that the center of the lens is aligned with the horizontal center of the screen.

The distance between the lens and the screen varies depending on the size of the screen and the attached lens. Use the charts for installation examples in the supplied "Projection Distance Charts."

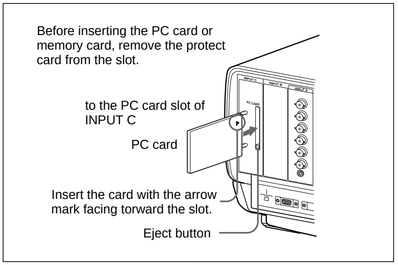
Connecting to LAN

This section describes how to connect the LAN PC card or wireless LAN PC card and install the memory card. For details on how to connect other equipment, see pages 21 and 32 to 34. Also refer to the instruction manuals of the equipment to be connected.

Installing a PC card

When you use the LAN PC card, wireless LAN PC card or memory card, insert the card into the PC card slot of INPUT C of the projector and set the INPUT C/RS-232C/RS-422A select switch to INPUT C.
When the PC card is inserted into the slot, the eject button pops out.

To remove the PC card from the slot, press the eject button.

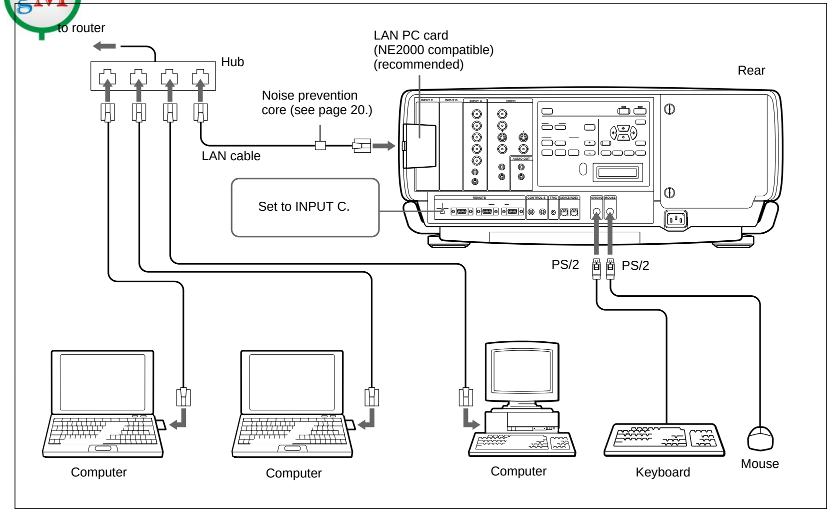

Before inserting the PC card or memory card, remove the protect card from the slot.
to the PC card slot of INPUT C
PC card
Eject button
Insert the card with the arrow mark facing torward the slot.

Notes

- For details of the recommended PC card or wireless LAN access point, see the attached "Recommended PC card/wireless LAN access point."
- When you use LAN , you must set the IP address. For details of setting IP address, etc,. see the attached "Operating Instructions for Networking."

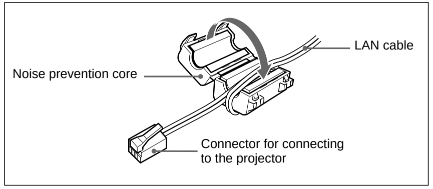
Connection of LAN PC card

gM

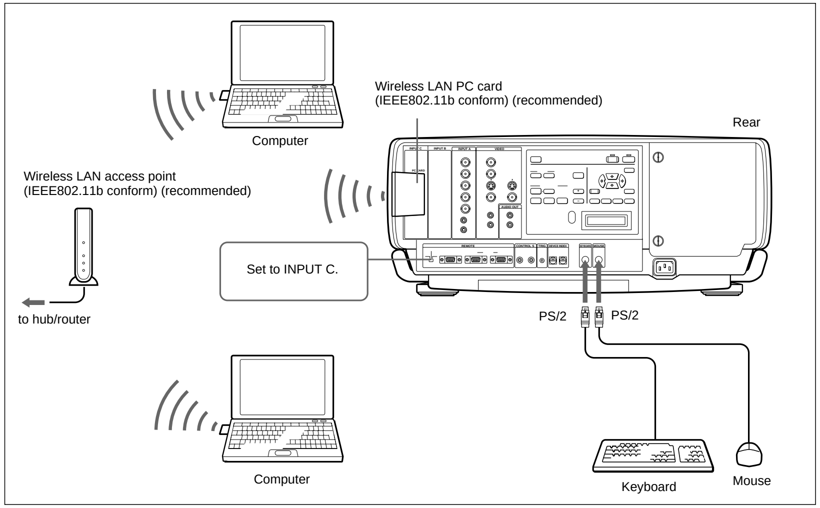

to router
Hub
LAN PC card
(NE2000 compatible)
(recommended)
Rear
Noise prevention core (see page 20.)
LAN cable
Set to INPUT C.
PS/2
PS/2
Computer
Computer
Computer
Keyboard
Mouse

Connecting to LAN

When connecting the projector to LAN
Attach the supplied noise prevention core near to the projector of the LAN cable.
When the shielded LAN cable is used, you do not need to attach the noise prevention core.


LAN cable
Noise prevention core
Connector for connecting to the projector

Connection of wireless LAN PC card


Computer
Wireless LAN PC card (IEEE802.11b conform) (recommended)
Rear
Wireless LAN access point (IEEE802.11b conform) (recommended)
Set to INPUT C.
to hub/router
PS/2
PS/2
Computer
Keyboard
Mouse

Installing a memory card

You can memorize the presentation file made by the Microsoft PowerPoint[1] in the memory card and show the file by inserting the memory card into the PC card slot of the projector.
For attaching and removing the memory card, see “Installing a PC card” on page 19.
For details of the recommended PC card, see the attached “Recommended PC card/wireless LAN access point.”

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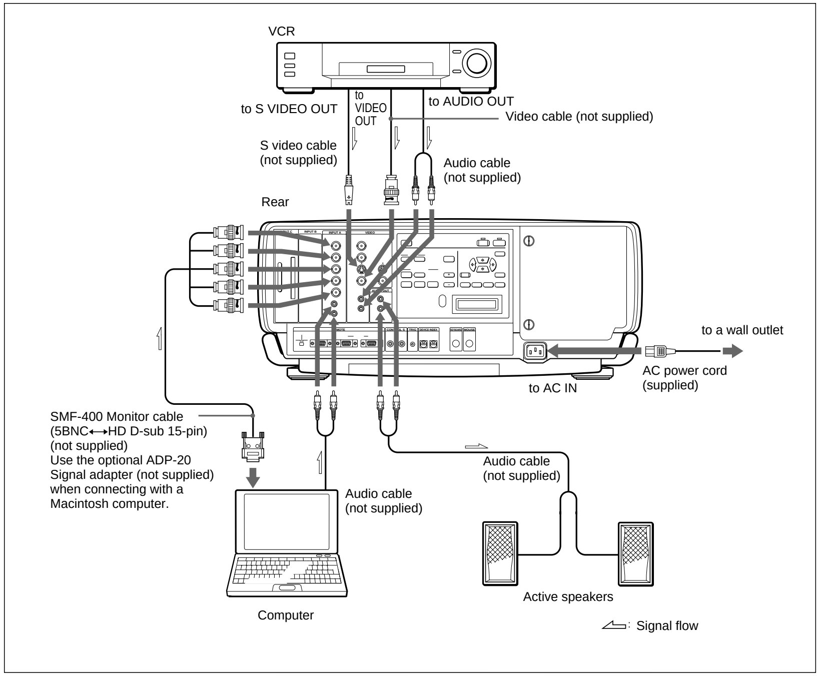
[1] PowerPoint is a registered trademark of Microsoft Corporation in the United States and/or other countries.

Connecting with a Computer or a VCR

This section describes how to connect the projector with a computer, VCR, and external active speakers.
For details on how to connect other equipment, see pages 32 to 34.
Also refer to the instruction manuals of the equipment to be connected.

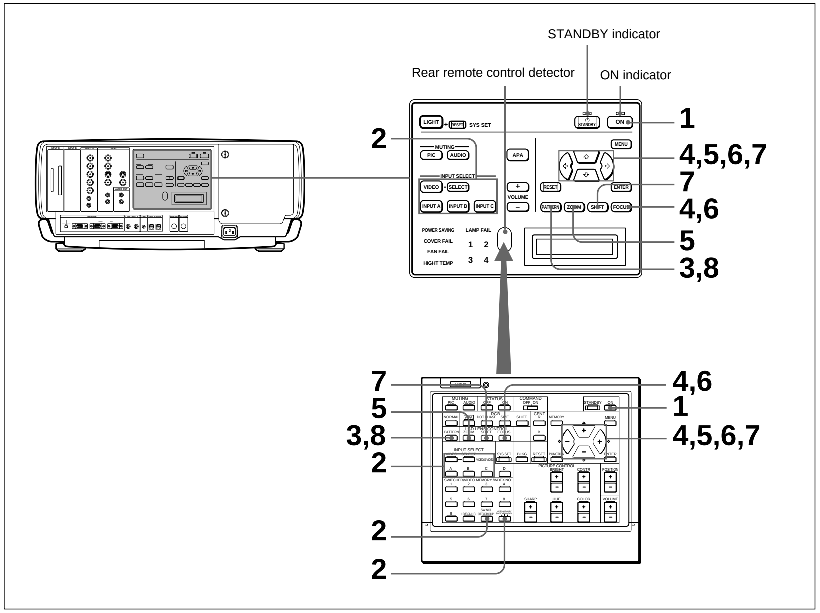
When making connections, be sure to:
- turn off all equipments before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out by the plug, not the cable itself.


VCR
to S VIDEO OUT
to VIDEO OUT
to AUDIO OUT
Video cable (not supplied)
S video cable (not supplied)
Audio cable (not supplied)
Rear
to a wall outlet
AC power cord (supplied)
to AC IN
SMF-400 Monitor cable (5BNC↔HD D-sub 15-pin) (not supplied)
Use the optional ADP-20 Signal adapter (not supplied) when connecting with a Macintosh computer.
Audio cable (not supplied)
Audio cable (not supplied)
Computer
Active speakers
Signal flow

Note

Set INPUT-A in the SIGNAL SELECT menu to COMPUTER.
For details, see page 31.

Projecting


STANDBY indicator
Rear remote control detector
ON indicator
1
2
4,5,6,7
7
4,6
5
3,8
LIGHT
RESET
SYS SET
STANDBY
ON
MUTING
PIC
AUDIO
APA
MENU
INPUT SELECT
VIDEO
SELECT
INPUT A
INPUT B
INPUT C
VOLUME
RESET
ENTER
PATTERN
ZOOM
SHIFT
FOCUS
POWER SAVING
LAMP FAIL
COVER FAIL
FAN FAIL
HIGHT TEMP
7
5
3,8
2
2
2
4,6
1
4,5,6,7

1 Press the ON key on the Remote Commander or the control panel.

The ON indicator lights in green.

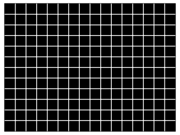
2 Turn on the power of equipment connected to the projector. Press the INPUT SELECT keys on the Remote Commander or the control panel to select the input source.

VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the VIDEO or S VIDEO connectors, use the SELECT key.
SELECT: Each time you press this key, the input signal is switched between VIDEO and S VIDEO.
INPUT A: Selects the audio and video signals input from the INPUT A connectors.
INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section.
INPUT C: Selects the Windows CE.

When you input the signal from equipment connected to the PC-3000 signal interface switcher (not supplied), set the SWITCHER/VIDEO MEMORY/INDEX select switch on the Remote Commander to the SWITCHER position and press the number keys to select the input. When multiple switchers are connected, press the SW NO/OFF/GROUP key, then press the number keys to select the input.

Note
Press the SYS SET key when you make the system connections using the PC-3000 switcher.

3 Press the PATTERN key on the Remote Commander or the control panel to display the HATCH pattern.



4 Press the FOCUS key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the focus.

“FOCUS” appears on the screen during adjustment.

5 Press the ZOOM key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the picture size.

“ZOOM” appears on the screen during adjustment.

Note
If the optional VPLL-2075, VPLL-2014, VPLL-2009 or VPLL-3050 lens is installed, you cannot adjust the zoom.

6 Press the FOCUS and arrow keys on the Remote Commander or the control panel to adjust the focus again.

“FOCUS” appears on the screen during adjustment.

(continued)

7 Press the SHIFT key then the arrow keys on the Remote Commander or the control panel to adjust the vertical position of the picture.

"PICTURE SHIFT" appears on the screen during adjustment.

8 Press the PATTERN key again to clear the HATCH pattern.

To	Press
Adjust the volume	the VOLUME +/– keys.
Cut off the sound	the AUDIO MUTING key (also cuts off the signal output from the AUDIO OUT jacks.) To restore the sound, press the AUDIO MUTING key again or press the VOLUME + key.
Cut off the picture	the PIC MUTING key. To restore the picture, press the PIC MUTING key again.

Note

Do not look into the lens when the projector lamp is on.

To turn off the power

1 Press the STANDBY key on the Remote Commander or the control panel.

The ON indicator flashes in green and the cooling fan keeps running for about six minutes to reduce the internal heat. The ON indicator flashes quickly for one minute. During this time, you will not be able to turn the power back on. After about one minute, you can turn on the power with the ON key.

When the fan stops running, the STANDBY indicator lights in red.

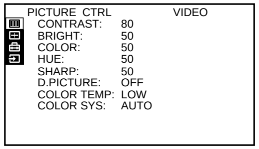
Note

To extend the lamp life, do not turn off the power for at least 10 minutes after turning on the power.

Using the Menu

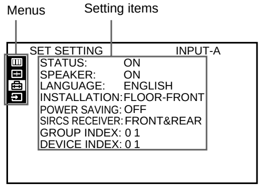
The projector is equipped with an on-screen menu for making various adjustments and settings.
Unadjustable items are not displayed in the menu.
To change the language used in the menu, see page 30.

1 Press the MENU key.
The menu display appears.
The menu presently selected is highlighted in yellow.



```
PICTURE  CTRL             VIDEO
  CONTRAST:    80
  BRIGHT:      50
  COLOR:       50
  HUE:         50
  SHARP:       50
  D.PICTURE:   OFF
  COLOR TEMP:  LOW
  COLOR SYS:   AUTO
```

2 Use the ↑ or ↓ key to select a menu, then press the → or the ENTER key.
The setting items of the selected menu are displayed.



```
SET SETTING             INPUT-A
 STATUS:         ON
 SPEAKER:        ON
 LANGUAGE:       ENGLISH
 INSTALLATION:   FLOOR-FRONT
 POWER SAVING:   OFF
 SIRCS RECEIVER: FRONT&REAR
 GROUP INDEX:    0 1
 DEVICE INDEX:   0 1
```

3 Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

4 Adjust an item.

- **When changing the adjustment level:**
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.

- **When changing the setting:**
  Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
  The original screen is restored.

For details on setting individual items, see the relevant menu pages.

To erase the menu display

Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

To reset settings that have been adjusted

Press the RESET key.
"Reset complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

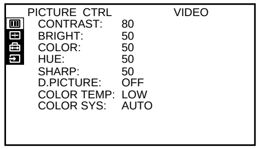
Items that can be reset are as follows:
CONTRAST, BRIGHT, COLOR, HUE, SHARP, DOT PHASE, SIZE, SHIFT and BLANKING.

About the memory of the settings

The settings are automatically stored in the projector memory.

The PICTURE CTRL Menu

The PICTURE CTRL menu is used for adjusting the picture. Unadjustable items are not displayed in the menu.



```
PICTURE  CTRL              VIDEO
  CONTRAST:     80
  BRIGHT:       50
  COLOR:        50
  HUE:          50
  SHARP:        50
  D.PICTURE:    OFF
  COLOR TEMP:   LOW
  COLOR SYS:    AUTO
```

CONTRAST

Adjusts the picture contrast.
The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT (Brightness)

Adjusts the picture brightness.
The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

COLOR

Adjusts color intensity.
The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

Adjusts the color tones.
At high settings, the picture becomes greenish.
At low settings, the picture becomes purplish.

SHARP (Sharpness)

Adjusts the picture sharpness.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

Emphasizes the black color.

ON: Emphasizes the black color to produce a bolder "dynamic" picture.

OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

COLOR TEMP (temperature)

Adjusts the color temperature.

HIGH: Makes the white color bluish.

LOW: Makes the white color reddish.

COLOR SYS (system)

Selects the color system of the input signal.
Normally, set to AUTO.
If the picture is distorted or colorless, select the color system (NTSC$_{3.58}$/PAL/SECAM/NTSC$_{4.43}$/PAL-M) according to the input signal.

GAMMA MODE

Select either position to obtain an optimum picture.

GRAPHICS: Improves the reproduction of half tones. Photos can be reproduced in natural tones.

TEXT: Contrasts black and white. Suitable for images with lots of text.

Input signals and adjustable/setting items

Item	**Input signal**					
	Video or S video	15k RGB	Component/ progressive component	RGB (preset)	RGB (preset) (HDTV, DTV)	RGB (not preset)
CONTRAST	Y	Y	Y	Y	Y	Y
BRIGHT	Y	Y	Y	Y	Y	Y
COLOR	Y	Y	Y	N	Y	N
HUE	Y (NTSC 3.58/ 4.43[1] only)	Y	Y	N	Y	N
SHARP	Y	Y	Y	N	Y	N
D. PICTURE	Y	N	Y	N	N	N
COLOR TEMP	Y	Y	Y	Y	Y	Y
COLOR SYS	Y	N	N	N	N	N
GAMMA MODE	N	N	N	Y	N	Y

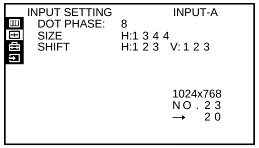
Y: Adjustable/can be set
N: Not adjustable/cannot be set

---

[1] NTSC$_{4.43}$ is the color system used when playing back a video recorded in NTSC color system on a NTSC$_{4.43}$ system VCR.

The INPUT SETTING Menu

The INPUT SETTING menu is used to change the settings of the input signal. Unadjustable items, which vary according to the input signal, are not displayed in the menu.



```
INPUT SETTING              INPUT-A
  DOT PHASE:    8
  SIZE          H:1 3 4 4
  SHIFT         H:1 2 3   V: 1 2 3



                           1024x768
                           N O .  2 3
                           →      2 0
```

DOT PHASE

Adjusts the phase of the LCD panel and the input signal when H FILTER is set to OFF.
Adjust the value to obtain the clearest picture.

SIZE

Adjusts the horizontal size of the picture.
As the setting for H increases, the horizontal size of the picture becomes larger, and as the setting decreases, the size becomes smaller. Adjust the setting according to the input signal.
Use the ← or → key to adjust the horizontal size.

SHIFT

Adjusts the position of the picture.
H adjusts the horizontal position of the picture, and V adjusts the vertical position. As the setting for H increases, the picture moves to the right, and as the setting decreases, it moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, it moves down.
Use the ← or → key to adjust the horizontal position and the ↑ or ↓ key for the vertical position.

SCAN CONV (converter)

Converts the signal to display the picture so that it fits the screen size.

ON: Displays the picture to fill the 4:3 screen. The picture will lose some clarity.

OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

Note

The function does not work for signals in Memory No. 32 and 33.

ASPECT

Sets the aspect ratio of the picture.
When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.

4:3: When the picture with ratio 4:3 is input

16:9: When the picture with ratio 16:9 (squeezed) is input

H FILTER

Corrects the vertical bands that appear on the picture.
The vertical bands may occur when an RGB signal with horizontal resolution of more than 1280 × 1024 pixels is input. In such cases, set to ON. The picture will loose some clarity, but the vertical bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the LCD.

BLANKING

Adjusts if excess signals are seen with the picture, or the whole picture is not seen clearly.
Select BLANKING, then press the ENTER key to display the blanking adjustment screen.
Use the ↑ or ↓ key to select the part to be adjusted (TOP, BOTOM, RIGHT or LEFT), and the ← or → key to adjust.

http://getMANUAL.com

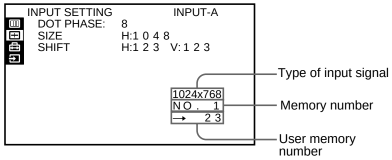
Input signals and adjustable/setting items

Item	Input signal				
	Video or S video	15k RGB	Component/ Progressive component	RGB (preset)	RGB (not preset)
DOT PHASE	N	N	N	Y (except for HDTV, DTV)	Y
SIZE	N	N	Y	Y	Y
SHIFT	Y	Y	Y	Y	Y
SCAN CONV	N	N	N	Y (Only for lower resolution than SXGA)	Y (Only for lower resolution than SXGA)
ASPECT	Y	Y	Y	N	N
H FILTER	N	N	N	Y (UXGA only)	Y (UXGA only)
BLANKING	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (HDTV, DTV only)	Y

Y: Adjustable/can be set
N: Not adjustable/cannot be set

INPUT MEMORY No.

The upper number indicates the memory number of the current input signal. The lower number indicates the user memory number.


INPUT SETTING INPUT-A
DOT PHASE: 8
SIZE H:1 0 4 8
SHIFT H:1 2 3 V:1 2 3
1024x768
NO. 1
→ 2 3

About the memory function

The adjustment data for 48 types of input signals are preset at the factory (preset memory).

When a signal is input to the projector, the signal type is automatimally detected and the data for the signal is called from the memory to display an optimum picture.

The data can be adjusted in the INPUT SETTING menu and the adjusted data will be saved as user memory.

When you save more than 200 user memories, the newest one always overwrites the oldest one.

The saved user memory number is displayed in the INPUT SETTING menu as → NO. ☐☐.

When an RGB signal other than the preset signals is input to the projector, the memory number is displayed as 0 and the closest option is automatically selected from the preset 48 types of signals.

Notes

- When an RGB signal is input with sync on Green including external sync, the picture tone may be greenish. In this case, disconnect the external sync signal.
- When an HDTV 1035/60i signal is input, the picture will appear smaller. Adjust SIZE, SHIFT and BLANKING referring to the following levels as a standard.

SIZE H: 1479
SHIFT H: 321
V: 41
BLANKING TOP: 167
BOTTOM: 167
RIGHT: 27
LEFT: 27

- If SCAN CONV is set to ON when a signal in Memory No. 34–38 is input, the picture will appear widened. Adjust SIZE and SHIFT, referring to the following levels as a standard.

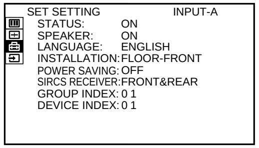
Memory No.		34	35	36	37	38
SIZE		1590	1575	1590	1582	1620
SHIFT	H	181	170	182	146	154
	V	18	32	36	36	42

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Horizontal size
1	Video 60 Hz		15.73	59.94	—	—
2	Video 50 Hz		15.63	50.00	—	—
3	15k RGB (60 Hz)		15.73	59.94	S on G	—
4	15k RGB (50 Hz)		15.63	50.00	S on G	—
5	HDTV		33.75	60.00	S on Y/G	1543
6	640 × 350	VGA-1 (VGA350)	31.47	70.09	H-pos V-neg	800
7		VESA* 85(VGA350)	37.86	85.08	H-pos V-neg	832
8	640 × 400	NEC PC98	24.82	54.42	H-neg V-neg	848
9		VGA-2 (TEXT) /VESA70	31.47	70.09	H-neg V-pos	800
10		VESA 85 (VGA400)	37.86	85.08	H-neg V-pos	832
11	640 × 480	VGA VESA60	31.47	59.94	H-neg V-neg	800
12		Mac 13	35.00	66.67	S on G	864
13		VGA VESA 72	37.86	72.81	H-neg V-neg	832
14		VGA VESA 75 (IBM M3)	37.50	75.00	H-neg V-neg	840
15		VGA VESA 85 (IBM M4)	43.27	85.01	H-neg V-neg	832
16	800 × 600	SVGA VESA 56	35.16	56.25	H-pos V-pos	1024
17		SVGA VESA 60	37.88	60.32	H-pos V-pos	1056
18		SVGA VESA 72	48.08	72.19	H-pos V-pos	1040
19		SVGA VESA 75 (IBM M5)	46.88	75.00	H-pos V-pos	1056
20		SVGA VESA 85	53.67	85.06	H-pos V-pos	1048
21	832 × 624	Mac 16	49.72	74.55	H-neg V-neg	1152
22	1024 × 768	XGA VESA 43 (8514)	35.52	86.96	H-pos V-pos	1264
23		XGA VESA 60	48.36	60.00	H-neg V-neg	1344
24		XGA VESA 70	56.48	69.96	H-neg V-neg	1328
25		XGA VESA 75	60.02	75.03	H-pos V-pos	1312
26		XGA VESA 85	68.68	85.00	H-pos V-pos	1376
27	1152 × 864	VESA 70	64.00	70.02	H-pos V-pos	1472
28		VESA 75	67.50	75.00	H-pos V-pos	1600
29		VESA 85	77.49	85.06	H-pos V-pos	1568
30	1152 × 900	SUN LO	61.80	65.96	H-neg V-neg	1504
31		SUN HI	71.71	76.05	C-neg	1472
32	1280 × 960	VESA 60	60.00	60.00	H-pos V-pos	1800
33		VESA 75	75.00	75.00	H-pos V-pos	1728
34	1280 × 1024	SXGA VESA 43	46.43	86.87	H-pos V-pos	1696
35		SGI-5	53.32	50.06	H-neg V-neg	1680
36		SXGA VESA 60	63.97	60.01	S on G	1696
37		SXGA VESA 75	79.98	75.03	H-pos V-pos	1688
38		SXGA VESA 85	91.15	85.02	H-pos V-pos	1728
39	1600 × 1200	UXGA VESA 60	75.00	60.00	H-pos V-pos	1689
40		UXGA VESA 65	81.91	65.53	H-pos V-pos	1689
41		UXGA VESA 75	93.75	75.00	H-pos V-pos	1689
43	480/60p (Progressive component)		31.47	60.00	S on G	1605
44	575/50p (Progressive component)		31.25	50.00	S on G	1616
45	1080/50i		28.13	50.00	—	1852
47	720/60p		45.00	60.00	—	1736
48	720/50p		37.50	50.00	—	2084
49	1080/24PsF		27.00	48.00	—	1929

* VESA is a registered trademark of Video Electronics Standard Association.

The SET SETTING Menu

The SET SETTING menu is used for changing the initial settings of the projector. Unadjustable items are not displayed in the menu.



```
SET SETTING              INPUT-A
   STATUS:          ON
   SPEAKER:         ON
   LANGUAGE:        ENGLISH
   INSTALLATION:FLOOR-FRONT
   POWER SAVING: OFF
   SIRCS RECEIVER:FRONT&REAR
   GROUP INDEX: 0 1
   DEVICE INDEX: 0 1
```

STATUS

Sets up the on-screen display.

ON: Shows all of the on-screen displays.
OFF: Turns off the on-screen displays except for the menus and warning messages.

SPEAKER

Set to OFF to cut off the sound of the internal speaker when external speakers are connected. When set to OFF, "SPEAKER OFF" appears on the screen when you turn on the power.

LANGUAGE

Selects the language used in the menu and on-screen displays.
Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

INSTALLATION

Reverses the picture horizontally or vertically.

FLOOR-FRONT: The picture is not reversed.
CEILING-FRONT: The picture is reversed horizontally and vertically.
FLOOR-REAR: The picture is reversed horizontally.
CEILING-REAR: The picture is reversed vertically.

Note

In case of using a mirror, be careful of installation since the picture may be reversed.

POWER SAVING

When set to ON, the projector goes into the power saving mode and the lamp for light source turns off if no signal is input for about 10 minutes.
The power saving mode is canceled when a signal is input or any key is pressed.

SIRCS RECEIVER

Selects the remote control detectors to be activated. Change the setting if the wireless Remote Commander does not work properly due to the influence of the fluorescent lamp, etc.

FRONT & REAR: Activates both the front and rear detectors.
FRONT: Activates the front detector only.
REAR: Activates the rear detector only.
OFF: Activates neither the front nor rear detector.

Note

When set to OFF, the wireless Remote Commander does not function. Use the keys on the control panel or the wired Remote Commander.

GROUP INDEX

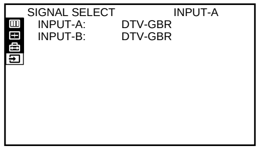
Groups multiple projectors or switchers to operate them simultaneously.
You can set the group index number to the desired number between 01 and 99.
For details for setting the group index, see pages 35 and 36.

DEVICE INDEX

Displays the index number set with the INDEX switches on the rear of the projector. You can check the device index number but cannot set it with this menu.
For details for setting the number, see page 35.

The SIGNAL SELECT Menu

The SIGNAL SELECT Menu is used for selecting the input signal.
Depending on the interface board installed in the projector, some items may not be displayed in the menu.



```
SIGNAL SELECT              INPUT-A
   INPUT-A:          DTV-GBR
   INPUT-B:          DTV-GBR
```

Use the ⬆ or ⬇ key to select the input, then press the ENTER key.

INPUT-A

Selects audio and video signals input from the INPUT A connectors.

COMPUTER: Inputs the signal from a computer or the RGB signal for a still picture.
COMPONENT: Inputs the component signal.
DTV-YP$_B$P$_R$: Inputs the DTV (YP$_B$P$_R$) or HDTV (YP$_B$P$_R$) signal.
DTV-GBR: Inputs the DTV (GBR) or HDTV (GBR) signal.

Note

When the PC-3000 signal interface switcher is connected to the INPUT A connectors, you cannot select the item.

INPUT-B

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT B section.

COMPUTER: Inputs the signal from a computer or the RGB signal for a still picture.
COMPONENT: Inputs the component signal.
DTV-YP$_B$P$_R$: Inputs the DTV (YP$_B$P$_R$) or HDTV (YP$_B$P$_R$) signal.
DTV-GBR: Inputs the DTV (GBR) or HDTV (GBR) signal.
VIDEO: Inputs the composite video signal.
S-VIDEO: Inputs the S video signal.

Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT B section, or when the output mode is selected on the IFB-12A.

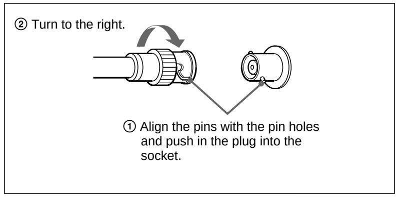
Connection Examples

For details on how to connect to LAN, see page 19.
For details on how to connect a computer, VCR or external active speakers, see page 21. Also refer to the instruction manual of the equipment to be connected.

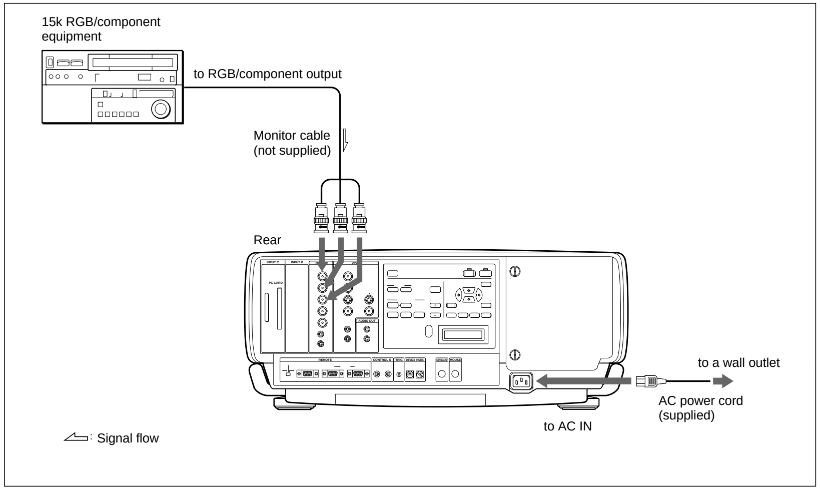
When making connections, be sure to:

- turn off all equipments before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted may generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Connecting a BNC connector


② Turn to the right.
① Align the pins with the pin holes and push in the plug into the socket.

Connecting 15k RGB/Component Equipment


15k RGB/component equipment
to RGB/component output
Monitor cable (not supplied)
Rear
to a wall outlet
AC power cord (supplied)
to AC IN
Signal flow

Note

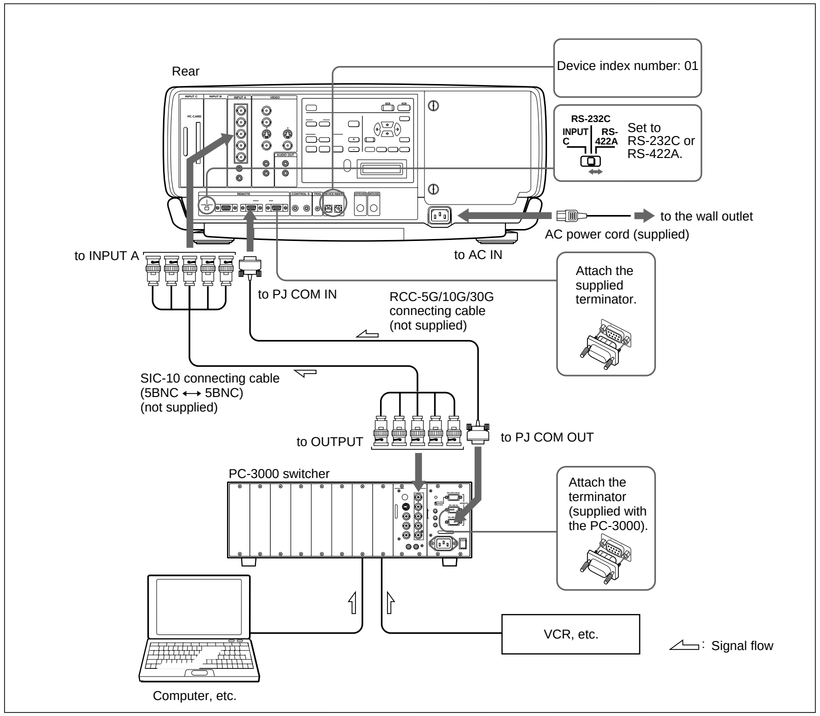
Switch the input signal with the INPUT-A item in the SIGNAL SELECT menu.
For details, see page 31.

Connecting the Switcher

Use the optional PC-3000 Signal Interface Switcher for connecting various video equipment. The input can be selected by pressing the SWITCHER/VIDEO MEMORY/INDEX keys on the Remote Commander.
For selecting the input from the switcher, see page 15.

Notes

- When you select the input from the switcher, be sure to set the SWITCHER/VIDEO MEMORY/INDEX select switch to the SWITCHER position.
- When connecting the switcher, use the wired Remote Commander. If you use the wireless Remote Commander, it activates the remote control detector on only one unit of the equipment connected through the PJ COM connector. For the other equipment, set SIRCS RECEIVER in the SET SETTING menu to OFF to deactivate the remote control detectors.
  For details, see page 30.
- After all the connections are completed, attach the terminator (supplied) to the PJ COM connector on both the projector and switcher to which nothing is connected.


Rear
Device index number: 01
RS-232C
INPUT C
RS-422A
Set to RS-232C or RS-422A.
to the wall outlet
AC power cord (supplied)
to INPUT A
to AC IN
to PJ COM IN
RCC-5G/10G/30G connecting cable (not supplied)
Attach the supplied terminator.
SIC-10 connecting cable (5BNC ←→ 5BNC) (not supplied)
to OUTPUT
to PJ COM OUT
PC-3000 switcher
Attach the terminator (supplied with the PC-3000).
VCR, etc.
Signal flow
Computer, etc.

Confirming the System Construction

After all the connections are complete, confirm that equipment of the system is properly setup.

1. Connect the AC cords of all equipment to the AC outlets.
2. Press the SYS SET key on the Remote Commander.
   You can also press the LIGHT and RESET keys simultaneously on the control panel for the same effect.
   Information on the system construction and the settings of the interface boards, etc. are automatically confirmed. Then the message disappears.

Note

When you want to use the projector without connecting the switcher after using the switcher in the system connections, it is necessary to confirm the system construction again by pressing the SYS SET key or the LIGHT and RESET keys after all the connections are completed. If you press the key(s), “Master Switcher not exist” appears, but the system construction is automatically recognized.

When a system error is detected

The following messages are displayed on the screen and display window:

Message	Remedy
Master Switcher not exist.	Set the switcher that outputs the signal to the projector to number 1.
Same DEVICE INDEX for Projector detected.	Change either number of the projectors that have the same number.
Same DEVICE INDEX for Switcher detected.	Change either number of the switchers that have the same number.

Note

If the switcher is in standby mode, the message appears only in the message display window.

Setting the Index Numbers

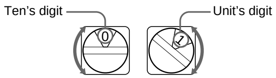
When you connect multiple projectors in your system, you have to set the group index and device index numbers for each projector.

To set the group index number

If you set the same group index number for multiple projectors, you can operate multiple projectors and switchers simultaneously (such as input selection) by designating the number.
The group index number can be set in the menu.
For group index number setting, see page 30.

To set the device index number

If you set the device index number, you can control each projector individually with the supplied Remote Commander.
The device index number can be set with the DEVICE INDEX switches on the rear of the projector. It is set to “01” at the factory.
If only one projector is connected, set it to “01.”

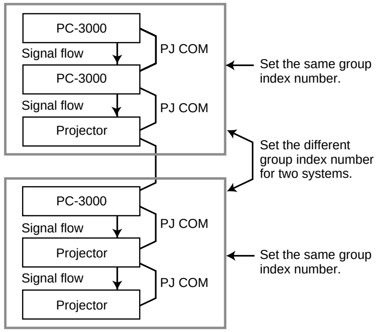


Notes

- Do not set the same device index number for the projectors in the same system.
- Do not set the number to “00.” If you do, the projector will be operated only with the keys on the control panel. It cannot be controlled with the wired or wireless Remote Commander, or with an external equipment to which the PJ COM connectors are connected.

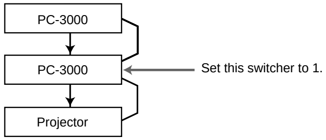
Notes on setting of the index number

- **Set the same group index number for all equipment of the same system connection (those on the signal route between the signal source and the projector).**


PC-3000
Signal flow
PC-3000
Signal flow
Projector
PJ COM
PJ COM
Set the same group index number.
Set the different group index number for two systems.
PC-3000
Signal flow
Projector
Signal flow
Projector
PJ COM
PJ COM
Set the same group index number.

For setting the group index number, see “GROUP INDEX” on page 30.

- **Set the correct group and device index numbers and the switcher number.**
  Do not set the same device index number or the same switcher number in one group.
  For example, if there are different pieces of equipment with the switcher number 1, the error message will appear when the SYS SET key is pressed.
- **Set the switcher that outputs the signal to the projector to number 1.**

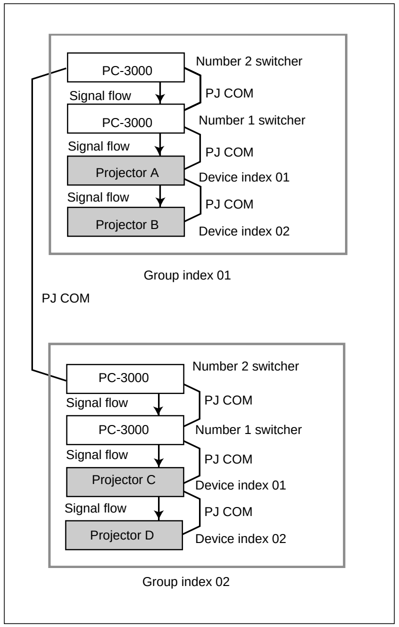


Notes on connections when two or more switchers are used

- **Mount the IFB-12A interface board to the slot 1 of the number n switcher and connect the output connector of the number (n+1) switcher to the IFB-12A.**
- **You can attach the IFB-12A signal interface board (when the IN/OUT switch is set to OUT) only to the number 1 switcher.**

To select the projector by designating the index numbers

When the switchers and projectors are connected as illustrated, select the desired projector by pressing the keys on the Remote Commander as shown below.


PC-3000
Number 2 switcher
Signal flow
PJ COM
PC-3000
Number 1 switcher
Signal flow
PJ COM
Projector A
Device index 01
Signal flow
PJ COM
Projector B
Device index 02
Group index 01
PJ COM
PC-3000
Number 2 switcher
Signal flow
PJ COM
PC-3000
Number 1 switcher
Signal flow
PJ COM
Projector C
Device index 01
Signal flow
PJ COM
Projector D
Device index 02
Group index 02

Example:

To select all the projectors
GROUP → ALL → ENTER → ALL → ENTER
Projectors A, B, C and D are selected.

To select projectors with device index 01 from all the groups
GROUP → ALL → ENTER → 1 → ENTER
Projectors A and C are selected.

To select a projector with device index 01 from group index 02
GROUP → 2 → ENTER → 1 → ENTER
Projector C is selected.

To select all the projectors from group index 02
GROUP → 2 → ENTER → ALL → ENTER
Projectors C and D are selected.

Notes

- Set the group index and device index numbers correctly. If more than two projectors are set to the same group index and device index numbers, an error message will be displayed when the SYS SET key is pressed.
- If the group index is a tens digit number, press the GROUP key before each press of the number key.
  Example:
  To select a projector with device index 13 of group index 12
  GROUP → 1 → GROUP → 2 → ENTER → 1 → 3 → ENTER

Maintenance

Replacing the Lamp

When the lamp has burnt out, the LAMP FAIL indicators at the rear of the projector light. In this case, replace the lamp with a new LMP-Q130 Projector Lamp (not supplied).

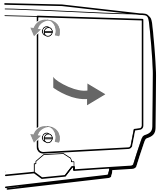
Note

Immediately after turning off the power, the lamp is extremely hot. Wait at least one hour before changing the lamp to give it enough time to cool down.

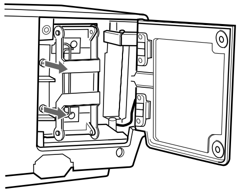
To remove the lamp

1 Press the STANDBY key to set the projector to standby mode, and unplug the power cord.

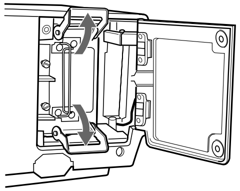
2 Remove the two screws with a coin or similar object, or a screwdriver, to open the lamp cover.



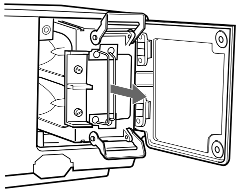
3 Loosen the two screws that fasten the lamp.



4 Fold out the levers up and down.

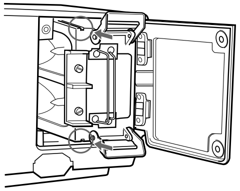


5 Pull out the lamp by holding the handles.

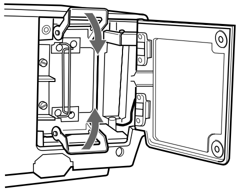


To install a new lamp

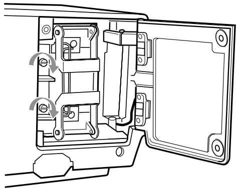
1 Mount the lamp with the grooves on the top and bottom aligned with the guides on the projector.



2 Push the lamp completely until it clicks. Fold down the levers to fix the lamp to the projector.

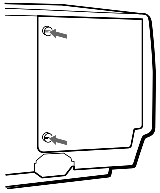


3 Tighten the two screws to secure the lamp.



(continued)

4 Replace the lamp cover and push to tighten the two screws to fix the cover.



To reset the use time of the lamps in the message display window

1 Plug in the power cord and set the projector to standby mode.

2 Press the LIGHT, ←, → and ENTER keys on the control panel in sequence. Press each key within 5 seconds.

TIMER RESET?
LAMP: 1

3 Press the ↑, ↓, ← or → key to display ALL.

TIMER RESET?
LAMP: ALL

4 Press the ENTER key.

TIMER RESET??
LAMP: ALL

5 Press the ENTER key again to reset the time.

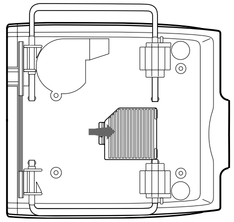
6 To exit the reset mode, display EXIT and press the ENTER key.

Cleaning the Air Filter

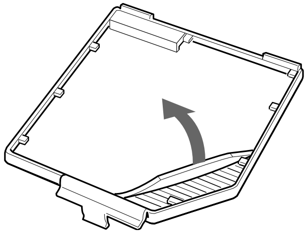
The air filter should be cleaned in every 100 hours. When it becomes difficult to remove the dust from the filter, replace the filter with a new one.

1 Turn off the power of the projector and unplug the power cord.

2 Remove the air filter cover on the bottom of the projector.



3 Remove the air filter.



4 Remove the dust from the filter with a vacuum cleaner.

5 Attach the air filter and replace the cover.

Notes

- If the air filter is excessively dirty, wash it with mild detergent solution and dry it in a shaded place.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the ON key at a short interval.	Wait for about one minute before turning on the power *(see page 10).*
	The lamp cover is detached.	Attach the lamp cover securely.
	The air filter cover is detached.	Attach the air filter cover securely *(see page 38).*
No picture and no sound.	Cable is disconnected.	Check that the proper connections have been made *(see pages 21, 32 and 33).*
	Input selection is not correct.	Select the input source correctly in the SIGNAL SELECT menu *(see page 31).*
No picture or no sound.	Either the picture or the sound is cut off.	Press the MUTING key to cancel the muting function *(see page 24).*
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
The picture from INPUT A/B connector is colored strange.	Setting for INPUT-A or INPUT-B in the SIGNAL SELECT menu is incorrect.	Set INPUT-A or INPUT-B in the SIGNAL SELECT menu correctly according to the input signal *(see page 31).*
“Please check INPUT-A in SIGNAL SELECT” appears in spite of inputting the correct signal from INPUT A.	Setting for INPUT-A in the SIGNAL SELECT menu is incorrect.	Set INPUT-A in the SIGNAL SELECT menu correctly according to the input signal *(see page 31).*
“Please check INPUT-B in SIGNAL SELECT” appears in spite of inputting the correct signal from INPUT B.	Setting for INPUT-B in the SIGNAL SELECT menu is incorrect.	Set INPUT-B in the SIGNAL SELECT menu correctly according to the input signal *(see page 31).*
“NO INPUT” appears when 15k RGB or component signal is input.	The sync signal is incorrect.	Input the correct sync singal (composite sync or sync on G singal (sync on Y for component singal)).
On-screen displays do not appear.	STATUS in the SET SETTING menu is set to OFF.	Set STATUS in the SET SETTING menu to ON *(see page 30).*
Color balance is not correct.	Picture has not been adjusted properly.	Adjust the picture *(see page 26).*
	The color system of the input signal is not set correctly.	Set COLOR SYS in the PICTURE CTRL menu to match the color system of the input *signal (see page 26).*
The picture is too dark.	The lamp is nearing the end of its life.	Replace the lamp with a new one *(see page 37).*
	Contrast or brightness has not been adjusted properly.	Adjust CONTRAST or BRIGHT in the PICTURE CTRL menu properly *(see page 26).*
The picture is not clear.	The picture is out of focus.	Adjust the focus *(see page 23).*
	Moisture condensation has occurred on the lens.	Leave the projector for about two hours with the power on *(see page 17).*
The image from INPUT C is fixed.	Some trouble has occurred to the Windows CE.	Press the FUNCTION key and then RESET key on the Remote Commander within 5 seconds to reset the Windows CE.

Troubleshooting

Symptom	Cause	Remedy
The image from INPUT C does not appear. "NO INPUT" is displayed.	The INPUT C/RS-232C/RS-422A select switch is not set correctly.	Set the INPUT C/RS-232C/RS-422A select switch to INPUT C.
The PJ COM connectors do not function.	The INPUT C/RS-232C/RS-422A select switch is set to INPUT C.	Set the INPUT C/RS-232C/RS-422A select switch to RS-232C or RS-422A.
The mouse or keyboard does not function.	The mouse or keyboard is connected after the power of the projector is turned on.	Connect the mouse or keyboard before the power of the projector is turned on. You can use the mouse or keyboard when the INPUT C/RS-232C/RS-422A select switch is set to INPUT C and the INPUT C signal is selected.
The Remote Commander does not work.	The batteries are exhausted.	Replace the batteries with new ones *(see page 16).*
	The remote commander cable is connected to the Remote Commander although you are using it as a wireless Remote Commander.	Disconnect the remote control cable.
	The fluorescent lamp influences on the Remote Commander detector.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 30).*
	You have selected a wrong index number.	Select the correct index number *(see pages 30 and 35).*
	You have set the index number to "00".	Select the correct index number *(see pages 30 and 35).*
The wireless Remote Commander does not function.	The SIRCS RECEIVER setting is not correct.	Change the setting of SIRCS RECEIVER in the SET SETTING menu (see page 30).
INPUT A cannot be selected.	The switcher is not connected, but is recognized to be connected.	If the PJ COM connector is connected to something other than the terminator, remove it then press the SYS SET key, or LIGHT and RESET keys on the control panel.
The COVER FAIL indicator lights.	The lamp cover or air filter cover is detached.	Attach the lamp cover or air filter cover securely *(see pages 37 and 38).*
The LAMP FAIL indicator lights.	The lamp with the same number of the indicator has reached the end of its life.	Replace the lamp *(see page 37).*
The FAN indicator lights.	The fan is broken.	Consult with qualified Sony personnel.
The HIGH TEMP indicator lights.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes.
		Clean the air filter.
When you press the ZOOM, SHIFT or FOCUS key, "LENS CONTROL is locked! Do you wish to unlock ?" appears.	The lens control function is locked.	Consult with qualified Sony service personnel.

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High Temperature! Power off in 1 min.	Internal temperature becomes too high.	Turn off the power. (If not, the power is automatically turned off about one minute later.) Check to see if nothing is blocking the ventilation holes.
		Clean the air filter
Frequency is out of range!	The frequency of the input signal is out of the acceptable range.	Input a signal that is within the range of the frequency.
Please check INPUT-A in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-A in the SIGNAL SELECT menu is set to COMPONENT, DTV-GBR or DTV-YP$_B$P$_R$.	Set INPUT-A correctly.
Please check INPUT-B in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-B in the SIGNAL SELECT menu is set to COMPONENT, VIDEO, S-VIDEO, DTV-GBR or DTV-YP$_B$P$_R$.	Set INPUT-B correctly.
Backup Battery Very Low	The backup battery is worn out.	Consult with qualified Sony service personnel.

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, 3-primary color optical shutter system
LCD panel	1.8-inch SXGA LCD panel, 3,932,160 pixels (1,310,720 pixels × 3)
Lens	Option
Light output	ANSI lumen[1] 4,000 lm
Lamp	120 W UHP × 4

Electrical characteristics

Color system	NTSC$_{3.58}$/PAL/SECAM/NTSC$_{4.43}$/PAL-M system, switched automatically
Resolution	600 horizontal TV lines (video input) 1280 × 1024 dots (RGB input)
Acceptable computer signal	fH: 15 to 100 kHz fV: 40 to 120 Hz
Speakers	Max. 5 W, 90 × 50 mm (3 5/8 × 2 inches), monaural

Network

OS	Windows CE 2.12

Input/Output

CONTROL S	IN/PLUG IN POWER: Stereo minijack, 5 Vp-p, plug in power, DC 5 V, maximum output 60 mA OUT: Stereo minijack, 5 Vp-p
REMOTE RS-232C/422A	D-sub 9-pin (female) *(For details, see “Pin assignment” on page 45.)*
PJ COM	IN: D-sub 9-pin (male) OUT: D-sub 9-pin (female) *(For details, see “Pin assignment” on page 45.)*
TRIG	Minijack Power on: DC 12 V, output impedance: 4.7 kilohms Power off: 0 V
S VIDEO (priority to Y IN/C IN)	IN: Mini DIN 4-pin type (male) Y (luminance): 1 Vp-p ± 2 dB sync negative, 75 ohms terminated C (chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated OUT: Loop-through mini DIN 4-pin type (male) Loop-through output from the S VIDEO IN connector Y IN: BNC type 1 Vp-p ± 2 dB sync negative, 75 ohms terminated C IN: BNC type Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
VIDEO	IN: BNC type Composite video, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated OUT: Loop-through BNC type Loop-through output from the VIDEO IN connector
AUDIO IN	Phono type (stereo) 500 mVrms, impedance more than 47 kilohms
INPUT A	Analog RGB/component: BNC type R/R-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated G: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated G with sync/Y: 1 Vp-p ± 2 dB sync negative, 75 ohms terminated B/B-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated SYNC/HD: Composite sync: 0.6–8 Vp-p, high impedance, sync positive/negative Horizontal sync: 0.6–8 Vp-p, high impedance, sync positive/negative VD: Vertical sync: 0.6–8 Vp-p, high impedance, sync positive/negative AUDIO IN: Phono type (stereo) 500 m Vrms, impedance more than 47 kilohms HDTV/DTV (YPBPR): BNC type Y: 1 Vp-p ± 2dB positive, 75 ohms terminated Tri-level sync: ± 0.3 Vp-p Bi-level sync: 0.3 Vp-p PB/PR: 0.35 Vp-p ± 2dB positive, 75 ohms terminated HDTV/DTV (GBR): BNC type G with sync: 1 Vp-p ± 2 dB, 75 ohms terminated Tri-level sync: ± 0.3 Vp-p Bi-level sync: 0.3 Vp-p B/R: 0.7 Vp-p ± 2dB positive, 75 ohms terminated *(For HDTV/DTV signals see “Acceptable HDTV/DTV signals” on page 45.)*
Input C	PC card slot Type II
AUDIO OUT (variable out)	Phono type, Max. 1 Vrms When input is 500 mVrms: impedance less than 5 kilohms
MOUSE	Mini DIN 6-pin (female) *(For details, see “Pin assignment” on page 45.)*
KEYBOARD	Mini DIN 6-pin (female) *(For details, see “Pin assignment” on page 45.)*
Safety regulations	VPL-FE110U: UL1950, c-UL1950, FCC Class A, IC Class A VPL-FE110M: EN60 950 (NEMKO), CE, C-Tick

General

Dimensions	562 × 237 × 649 mm (22 1/4 × 9 3/8 × 25 5/8 inches) (w/h/d)
Mass	Approx. 34.5 kg (76 lb 1 oz) (excluding the optional lens)
Power requirements	VPL-FE110U: AC 100 to 120 V/ 220 to 240 V, 50/60 Hz[1] VPL-FE110M: AC 220 to 240 V, 50/60 Hz
Power consumption	Approx. 830 W Standby mode: 6.8W for VPL-FE110U, 12 W for VPL-FE110M (with the INPUT C/RS-232C/RS-422A set to INPUT C: 13.3 W for VPL-FE110U, 21 W for VPL-FE110M)
Heat dissipation	2833 BTU
Operating temperature	0°C to 40°C (32°F to 104°F)
Operating humidity	35% to 85% (no condensation)
Storage temperature	–20°C to +60°C (–4°F to +140°F)
Storage humidity	10% to 90%
Supplied Accessories	Remote Commander RM-PJ1001 (1) Size AA (R6) batteries (3) Remote commander cable (stereo) (15 m) (1) AC power cord (1) Terminator for the PJ COM connector (1) Lens ring (1) Noise prevention core (1) Operating Instructions (1) Operating Instructions for Networking (1) Installation Manual for Dealers (1) Protection Distance Chart (1) Recommended PC card/wireless LAN access point (1) Warranty Booklet (1)

This projector is designed for business use.

Design and specifications are subject to change without notice.

(continued)

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[1] ANSI lumen is a measuring method of American National Standard IT 7.228.

[1] UL listed for 120 V operation.

Specifications

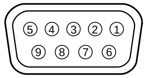
Optional accessories

Projector Lamp LMP-Q130 (for replacement)
Projector Lamp LMP-S120 (for replacement)
Interface Board
    IFB-12A (Analog RGB/component/HDTV/composite video/S video input with 5BNC type connectors)
    IFB-21 (Analog RGB input/output with HD D-sub 15-pin type connector)
    IFB-50 (serial digital video input/output with BNC type connector)
    IFB-1000 (Composite video input with BNC type connector/S video input with mini DIN 4-pin type connector)
Signal Interface Switcher PC-3000
Interface Unit IFU-1271/1271M
SIC Cable SIC-10
9-pin remote cable (for PJ COM) RCC-5G/10G/30G
Monitor Cable
    SMF-400 (HD D-sub 15-pin (male) ←→ 5BNC (female))
    SMF-410 (HD D-sub 15-pin (male) ←→ HD D-sub 15-pin (female))
Signal Adapter ADP-20 (Macintosh ←→ VGA)
Remote Commander RM-PJ3000S
Remote Commander RM-PJM610
Remote Control Receiver RM-PJ10
Projection Lens
    Fixed short focus lens VPLL-2009
    Fixed short focus lens VPLL-2014
    1.3-times zoom standard focus lens VPLL-Z3020
    1.6-times zoom long focus lens VPLL-Z2025
    1.5-times zoom long focus lens VPLL-Z2039
    Fixed long focus lens VPLL-3050
    Fixed long focus lens VPLL-2075
    1.3-times zoom standard focus lens VPLL-Z2019
Projector Stand SU-PJ2000 (for stacking)
Projector Suspension Support PSS-2000
Screens
    VPS-100FH (100-inch, flat)
    VPS-120FH (120-inch, flat)

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

Pin assignment

RS-232C/422A connector (D-sub 9-pin, female)



RS-232C

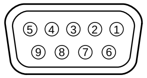
1	NC		6	DSR*	Data Set Ready
2	RD	Receive Data	7	RTS**	Request to Send
3	TD	Transmit Data	8	CTS**	Clear to Send
4	DTR*	Data Terminal Ready	9	NC	
5	GND	Ground			

* Circuit between pins 4 and 6 is short-circuited in the projector.
** Circuit between pins 7 and 8 is short-circuited in the projector.

RS-422A

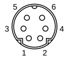
1	GND	Ground	6	GND	Ground
2	$\overline{\text{TX}}$	Transmit	7	TX	Transmit
3	RX	Receive	8	$\overline{\text{RX}}$	Receive
4	GND	Ground	9	GND	Ground
5	NC				

PJ COM connector (D-sub 9-pin, female)



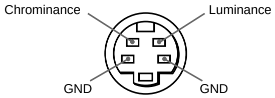
1	GND	Ground	6	GND	Ground
2	$\overline{\text{BUSY}}$	Busy	7	BUSY	Busy
3	TX/RX	Tramsmit/ Receive	8	$\overline{\text{TX/RX}}$	Tramsmit/ Receive
4	GND	Ground	9	GND	Ground
5	NC				

KEYBOARD/MOUSE connectors (mini DIN 6-pin)



1	DATA
2	NC
3	GND
4	+5V
5	CLOCK
6	NC

S VIDEO connector (mini DIN 4-pin)



Acceptable HDTV/DTV formats

Format	Scanning rate (kHz)	Frame rate (Hz)*	Scanning format	Aspect ratio	Standard
1035/60i	33.75	30	2:1 interlace	16:9	BTA S-001B
1080/60i	33.75	30	2:1 interlace	16:9	SMPTE 274M/ BTA S-001B
480/60P	31.5	60	Progressive	16:9/4:3	SMPTE 293M
575/50P	31.25	50	Progressive	16:9/4:3	–
1080/24PsF	27	24	2:1 interlace	16:9	–
1080/50i	28.13	25	2:1 interlace	16:9	SMPTE 274M
720/60P	45	60	Progressive	16:9	SMPTE 293M
720/50P	37.5	60	Progressive	16:9	–

* Each of the frame rates is also compatible with 1/1.001.

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SONY®

4-080-674-**11**(1)

LCD Data Projector

Installation Manual for Dealers

This Installation Manual for Dealers explains how to install the projector.
For example, it explains how to attach the lens and connect external equipment.
For installation examples with projection distances, refer to the supplied "Projection Distance Charts."

- The PDF data of the Operating Instructions, Installation Manual for Dealers and Projection Distane Charts (French, German, Spanish and Italian) are contained in the supplied CD-ROM. If you need a manual other than the English one, please read the data of the CD-ROM or print them out with a printer.
- When you use the CD-ROM, please read its "ReadMe" section, which introduces how to use the CD-ROM.

- Les données PDF du mode d'emploi, du manuel d'installation destiné aux revendeurs et tableaux des distances de projection (français, allemand, espagnol et italien) se trouvent sur le CD-ROM fourni. Si vous avez besoin d'une autre version du manuel que la version anglaise, consultez les données sur le CD-ROM ou imprimez-les au moyen d'une imprimante.
- Avant d'utiliser le CD-ROM, veuillez lire la section "ReadMe" qui vous explique comment exploiter le CD-ROM.

- El CD-ROM suministrado contiene los datos PDF de los manuales de instrucciones y de instalación para proveedores y de tablas de distancias de proyección (español, francés, alemán e italiano). Si necesita un manual que no sea el inglés, lea los datos del CD-ROM o imprímalos con una impresora.
- Cuando utilice el CD-ROM, lea su sección "ReadMe", en la que se describe cómo emplear dicho CD-ROM.

- Die Bedienungsanleitung, die Installationsanleitung für Händler und die Projektionsentfernungstabellen (Französisch, Deutsch, Spanisch und Italienisch) befinden sich im PDF-Format auf der mitgelieferten CD-ROM. Wenn Sie nicht mit dem englischen Handbuch arbeiten möchten, lesen Sie bitte das Handbuch in der gewünschten Sprache auf der CD-ROM, oder drucken Sie es aus.
- Wie Sie die CD-ROM verwenden, ist unter "ReadMe" auf der CD-ROM beschrieben.

- Le istruzioni per l'uso e il manuale di installazione per i rivenditori e i diagrammi delle distanze di proiezione in formato PDF in lingua francese, tedesca, spagnola e italiana sono contenuti nel CD-ROM in dotazione. Se occorre una copia dei manuali non in lingua inglese, è possibile visualizzare i manuali del CD-ROM a video oppure stamparli.
- Se si utilizza il CD-ROM, leggere la sezione "ReadMe" che spiega come utilizzare il CD-ROM.

VPL-FE110U
VPL-FE110M

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Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Carry and handle the projector by more than two people due to an incident of an injury.
- Avoid using an extension cord with a low voltage limited since it may cause the short-circuit and physical incidents.
- To carry the projector, be sure to use the carrying handle. Do not hold other parts of the projector, especially the lens, nor catch your finger between the handle, floor, and the projector.
- Do not catch your finger between the unit and surface of the floor when moving the projector installed on the floor.
- Be careful not to catch your finger in the cooling fan.
- Do not carry the projector by holding the cover of the cabinet.
- Do not carry the projector with the cabinet on and with its cover open.

On installation

- When the projector is mounted on the ceiling, the Sony PSS-2000 Projector Suspension Support must be used for installation.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 30 cm (11 $^{7}/_{8}$ inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Install the projector on the floor or ceiling. Any other installation causes a mulfunction such as color irregularity or shortening lamp life.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.
- Do not install the projector on the low ceiling.
- Be sure to secure the cabinet cover firmly when installing to the ceiling firmly.
- Do not install the projector near to medical instruments when a LAN card is used. It may cause incorrect operations of the instruments.

Precautions

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

After turning off the power, the cooling fan runs for about six minutes while the ON indicator flashes in green. The indicator flashes quickly for one minute. During that time, you will not be able to turn the power back on with the ON key.

Caution

The projector is equipped with ventilation holes (intake) at the bottom/front side and ventilation holes (exhaust) at the left/right side.
Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the air filter in every 100 hours.

On repacking

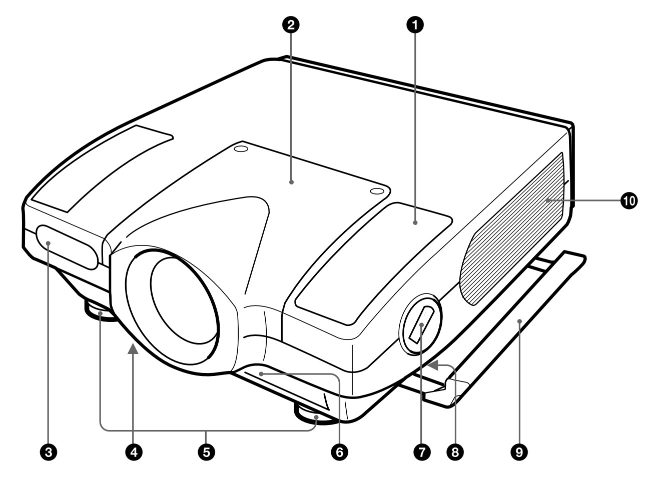
Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

On LCD projector

LCD projector is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD projector. This is a normal result of the manufacturing process and does not indicate a malfunction.

Location and Function of Controls

Front



❶ Speaker

❷ Lens mount part
When attaching the optional lens, consult with the Sony service personnel.

❸ Front remote control (SIRCS) detector

❹ Bottom ventilation holes (intake)
Do not block the holes.

❺ Adjusters
Use the adjusters to keep the projector level if it is installed on an uneven surface.

❻ Front ventilation holes (intake)
Do not block the holes.

❼ Adjuster button and lever
Press the button to raise the lever for adjusting the height of the adjuster.

❽ Handle lever (left and right sides)
Use the lever for putting away the carrying handle.

❾ Carrying handle (left and right sides)
Pull out the handle for carrying the projector.

❿ Left and right side ventilation holes (exhaust)
Do not place anything within the 30 cm (11 $^{7}/_{8}$ inches) range from these holes or block them.

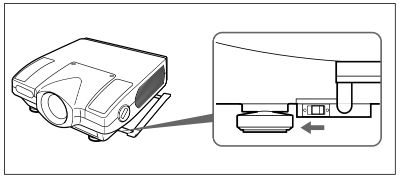
Notes

- Do not block the ventilation holes, or internal heat build-up may occur, causing fire or damage to the projector.
- Do not place anything near the ventilation holes or touch these holes as the temperature will be very high.

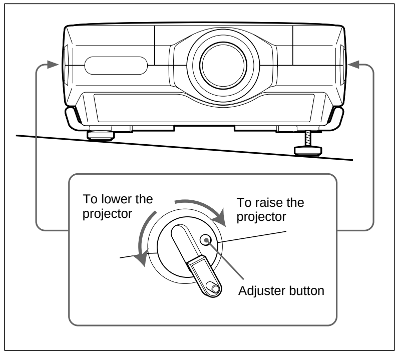
Location and Function of Controls

Using the carrying handles

Pull out to use for carrying the projector. To put away the handle, slide the handle lever forward.



Using the adjusters

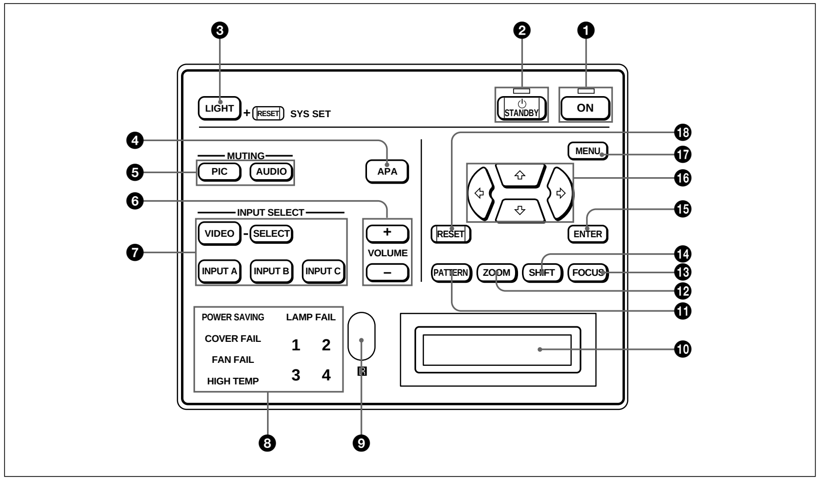

To lower the projector
To raise the projector
Adjuster button

1 Press the adjuster button.
The adjuster lever comes out.

2 Turn the lever to adjust the height so that the projector becomes level.

3 Replace the adjuster lever after use.

Control panel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⓰
⓱
⓲
LIGHT
+
RESET
SYS SET
STANDBY
ON
MUTING
PIC
AUDIO
APA
MENU
INPUT SELECT
VIDEO
SELECT
+
VOLUME
–
RESET
ENTER
INPUT A
INPUT B
INPUT C
PATTERN
ZOOM
SHIFT
FOCUS
POWER SAVING
LAMP FAIL
COVER FAIL
FAN FAIL
HIGH TEMP
1
2
3
4

❶ ON key and indicator
Press to turn on the power of the projector.
The indicator lights when the key is pressed.
The indicator flashes for about six minutes after the power is turned off by pressing the STANDBY key, as the fan runs for six minutes to cool down the inside of the projector. The indicator flashes quickly for one minute, during which you will not be able to turn the power back on with the ON key.

❷ STANDBY key and indicator
Press to make the projector enter standby mode.
The indicator lights to indicate that the projector is in standby mode.

❸ LIGHT key
Illuminates the key indicators in orange when the projector is turned on. Illuminates the indicators for the relative keys in green when this key is pressed during operation. Press again to turn off the indicators.

Pressing this key and the RESET key simultaneously has the same function as the SYS SET key on the Remote Commander. Use when the PC-3000 signal interface switcher is used in the system or the system connections are changed.

❹ APA (Auto Pixel Alignment) key
Adjusts the position of the picture on the screen automatically so that the picture is clearly visible when the signals are input from a computer.

❺ MUTING keys
Cut off the picture or sound temporarily.
PIC: Press to cut off the picture. Press again to restore the picture.
AUDIO: Press to cut off the sound output from the speakers or the AUDIO OUT jacks. Press again or press the VOLUME + key to restore the sound.

❻ VOLUME +/– keys
Adjust the volume of the built-in speakers and output level of the AUDIO OUT jacks.
+ : Increases the volume.
– : Decreases the volume.

(continued)

❼ INPUT SELECT keys
Select the input signal.

VIDEO: Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the S VIDEO and VIDEO connectors, use the SELECT key.

SELECT: Each time you press this key, the input video signal is switched between the VIDEO and S VIDEO connectors.

INPUT A: Selects the audio and video signals input from the INPUT A connectors.

INPUT B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section. When the IFB-12A interface board is installed and the output mode is selected on the IFB-12A, the key does not function.

INPUT C: Selects the Windows CE.

Note

When the INPUT C/RS-232C/RS-422A select switch is not set to INPUT C, the image from the INPUT C slot does not appear.

❽ Indicators

POWER SAVING: Lights when the projector is in power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, only the STANDBY key functions for the first 60 seconds. The power saving mode is canceled when a signal is input or any key is pressed.

COVER FAIL: Lights when the lamp cover or air filter cover is not secured firmly.

FAN FAIL: Lights when the fan is broken.

HIGH TEMP: Lights when temperature inside the projector becomes unusually high.

LAMP FAIL: When the lamp life has reached the end, the indicator of that lamp lights.

❾ Rear remote control (SIRCS) detector

❿ Message display window
Displays the signal status, timer and error messages about the input signals.

⓫ PATTERN key
Displays a HATCH pattern on the screen for focus, zoom, and shift adjustments. Press again to turn off the HATCH pattern.

⓬ ZOOM key
Enters the zoom adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the zoom using the arrow keys.

↑, →: Enlarges the picture size.
↓, ←: Reduces the picture size.

Note

If the VPLL-2075, VPLL-2014, VPLL-2009 or VPLL-3050 optional lens is installed, you cannot adjust the zoom.

⓭ FOCUS key
Enters the focus adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the focus using the arrow keys.

↑, →: Focuses on a forward picture.
↓, ←: Focuses on a picture further back.

⓮ SHIFT (lens shift) key
Enters the shift adjustment mode. When the key is pressed, the relative keys light in green.
Next adjust the vertical position of the picture using the arrow keys.

↑, →: Moves the picture upward.
↓, ←: Moves the picture downward.

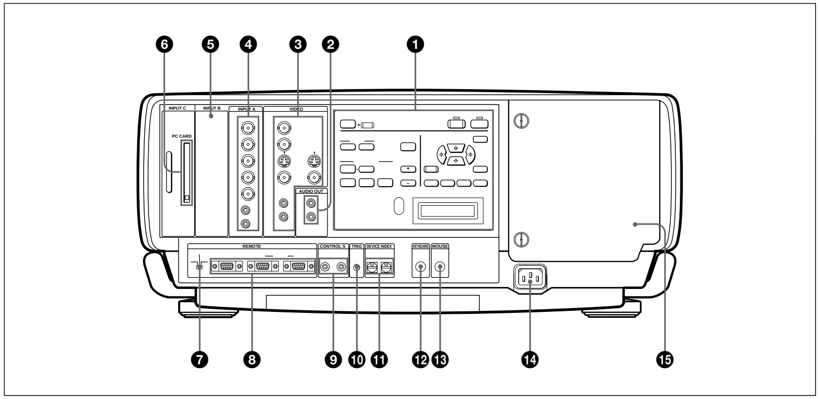
⓯ ENTER key
Stores the settings in the menu.

⓰ Arrow keys (↑/↓/←/→)
Used to adjust the picture after pressing the ZOOM, FOCUS or SHIFT key. Also used to move the cursor or adjust the value in the menu.

⓱ MENU key
Displays the menu on the screen. When the key is pressed, the relative keys light in green.
Press again to turn off the menu.

⓲ RESET key
Resets the adjusted value of an item to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

Rear



❶ Control panel
For details, see pages 7 and 8.

❷ AUDIO OUT L/R jacks (phono type)
Connect to external active speakers.
The volume of the speakers can be controlled by the VOLUME keys on the Remote Commander or the control panel.

❸ VIDEO connectors
Connect to external video equipment, such as a VCR.

Y IN/C IN (BNC type): Connect to the Y and C video outputs of the video equipment.

S VIDEO IN (mini DIN 4-pin): Connects to the Y/C video output of the video equipment.

S VIDEO OUT (mini DIN 4-pin): Used as loop-through output via the Y/C IN connectors or the S VIDEO IN connector.

VIDEO IN (BNC type): Connects to the composite video output connector of the video equipment.

VIDEO OUT (BNC type): Used as loop-through output of the VIDEO IN connector.

AUDIO IN L (MONO)/R jacks (phono type): Connect to the audio output jacks of equipment, such as a VCR. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note

If you have video equipment connected to both the Y/C IN and S VIDEO IN connectors, the signal from the Y/C IN connectors are selected prior to the S VIDEO IN connector. When projecting video connected to the S VIDEO IN connector, be sure not to connect any cable to the Y/C IN connectors.

❹ INPUT A connectors

RGB input connectors (R/R-Y/P_R, G/Y, B/B-Y/P_B, SYNC/HD, VD) (BNC type): Connect to the video outputs of equipment such as a computer or a video camera.
According to the connected equipment, the RGB or component (R-Y, Y, B-Y), HDTV (YP_BP_R or GBR) or DTV (YP_BP_R or GBR) signal is selected.

AUDIO IN L (MONO)/R jacks (phono type): Connect to the audio output jacks of equipment such as a computer or a video camera. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

Note

The INPUT A connectors do not function when the PC-3000 signal interface switcher is connected.

(continued)

❺ Signal interface board attachment part (INPUT B)
Optional signal interface board can be attached according to your requirements. If you install the IFB-12A interface board to this section and select the output mode, you can output the signal input through the INPUT A connectors.
For details on installing the interface boards, consult with qualified Sony personnel.

❻ PC card slot (INPUT C)(Type II)
The recommended LAN PC card or memory card can be attached according to your requirements.
For details, please read the attached “Operating Instructions for Networking.”

Note
You cannot output the signal input through the INPUT C from the INPUT B connectors (even when the IFB-12A interface board is installed to INPUT B.)

❼ INPUT C/RS-232C/RS-422A select switch
Selects according to the interface connected to the INPUT C or RS-232C/RS-422A connector.

❽ REMOTE connectors
Used to expand system capability.
RS-232C/RS-422A connector (D-sub 9-pin, female): Connect to a computer to operate the projector from the computer.
PJ COM IN/OUT connectors (D-sub 9-pin, female): The connectors conform to the RS-485 standards and are used to expand system capability for Sony projectors.
For details on connections, see the PJ COM protocol manual for Sony projectors.

Note
When the INPUT C/RS-232C/RS-422A select switch is set to INPUT C, you cannot use the PJ COM IN/OUT connectors.

❾ CONTROL S IN/OUT jacks (stereo minijack)
Connect to the control S jacks of other Sony equipment.
CONTROL S IN/PLUG IN POWER (DC 5 V output) jack: Connects to the CONTROL S OUT jack of the supplied Remote Commander when using as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.
CONTROL S OUT jack: Outputs the control S signal.

Note
When connecting the remote commander cable to the CONTROL S IN jack, the remote control detectors will not function.

❿ TRIG (trigger output) jack (monaural minijack)
The signal is transmitted from this jack to the connected equipment whether the projector is on or off. (This is not a power source for external equipment.) When the power is on, the TRIG jack transmits approximately 12 V trigger signal to external equipment connected to the projector. This signal is useful when you connect a system integrator, etc., to the projector; you can pull down an electric screen, draw an electric curtain, or dim lights at the same time as you turn on the projector power. (You cannot use the trigger signal as a power source.)
This jack outputs 0 V DC when the power is off.

⓫ DEVICE INDEX switch
Set the device index number of the projector when using multiple projectors. You can set the numbers between “01” and “99”. It is set to “01” at the factory. You can also set the group index number in the menu for system setup.

Note
Do not set the device index number to “00”. If you do, the projector will be operated only with the keys on the control panel.

⓬ KEYBOARD connector (PS/2, mini DIN 6-pin)
Connect a keyboard. This connector functions when the INPUT C/RS-232C/RS-422A select switch is set to INPUT C and the INPUT C signal is selected.

Note
Connect the keyboard before the power of the projector is turned on.

⓭ MOUSE connector (PS/2, mini DIN 6-pin)
Connect a mouse. This connector functions when the INPUT C/RS-232C/RS-422A select switch is set to INPUT C and the INPUT C signal is selected.

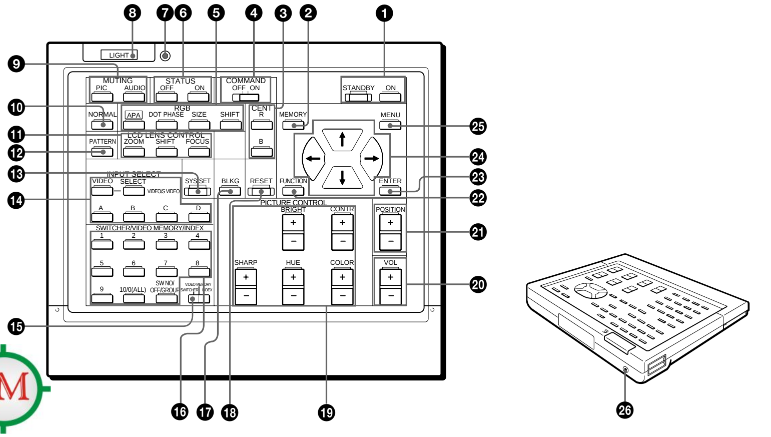
Note
Connect the mouse before the power of the projector is turned on.

⓮ AC IN socket
Connect the supplied AC Power cord.

⓯ Lamp cover

Remote Commander

The Remote Commander can be used as a wireless or wired Remote Commander. The keys on the Remote Commander with the same names function the same as those on the control panel of the projector.
For details on control panel keys on the projector, see pages 7 and 8.



❶ ON/STANDBY keys

❷ MEMORY key
When you select the W/B ADJUST menu of the SERVICE MODE menu, press this key to memorize the settings.

❸ CENT R/B keys
The keys do not function with this projector.

❹ COMMAND ON/OFF key
No keys except for the LIGHT button on the Remote Commander function when this switch is set to OFF. This saves battery power.

❺ RGB keys
Adjust the picture.
APA: The key functions the same as the APA key on the control panel.
DOT PHASE: Press to adjust the phase of the LCD panels and the input signals (except for 15k RGB/video/HDTV/DTV signals). After pressing this key, adjust the position of the picture using the four arrow keys so that the clearest picture is obtained.
SIZE: Enters the size adjustment mode for the input signal. Next adjust the horizontal size of the picture using the arrow keys.
←: to reduce horizontal size
→: to expand horizontal size
SHIFT: Enters the shift adjustment mode for the input signal. Next adjust the position of the picture using the four arrow keys. The picture shifts in the direction of the arrow on the pressed key.

❻ STATUS ON/OFF keys
Press OFF to eliminate the on-screen display.
Press ON to restore the on-screen display.

Note
The menus and warning messages appear even if the OFF key is pressed.

(continued)

❼ Transmission indicator
The light goes on each time a key is pressed. If the indicator does not light, replace the batteries.

❽ LIGHT button
Illuminates the key indicators when the COMMAND switch is set to ON. If the switch is set to OFF, only the COMMAND switch is illuminated.
If you do not press any key on the Commander for more than 30 seconds, the key indicators turn off automatically. The indicators also turn off if you press the LIGHT button again.

❾ MUTING keys

❿ NORMAL key
The key does not function with this projector.

⓫ LCD LENS CONTROL keys
Press one of the ZOOM, SHIFT and FOCUS keys and then the arrow keys (↑ or ↓).

⓬ PATTERN key

⓭ SYS SET (system set) key
When the PC-3000 signal interface switcher is used in the system or the system connections are changed, press this key.

Note

After connecting the PC-3000 switcher and pressing the SYS SET key, the input channel is set to SW1-1 when connecting a single switcher, or to SW1-2 when connecting two or more switchers.

⓮ INPUT SELECT keys
The D key does not function with this projector.

⓯ SWITCHER/VIDEO MEMORY/INDEX select switch
Selects the function of the SWITCHER/VIDEO MEMORY/INDEX keys.

SWITCHER: selects the input from the PC-3000 switcher.
VIDEO MEMORY: The position does not function with this projector.
INDEX: selects a projector by its index number when multiple projectors are used.

⓰ SWITCHER/VIDEO MEMORY/INDEX keys

When **the SWITCHER/VIDEO MEMORY/INDEX select switch** is set to **SWITCHER**

When the PC-3000 switcher is connected to the projector, press a number key (1 to 8) to select the input from the switcher. Number key 9 does not function.
To select an input when multiple switchers are connected, press the SW NO/OFF/GROUP key. Next press the switcher number (1 to 8) and the input number (1 to 8) in sequence. Be sure to press the keys one after another within 2 seconds.
e.g. To select input 4 of switcher 2, press the keys as follows: SW NO → 2 → 4.

When **the SWITCHER/VIDEO MEMORY/INDEX select switch** is set to **INDEX**

Used to specify the device or group index number.

⓱ BLKG (blanking) adjustment key
Enters the blanking adjustment mode.
Next, press the ↑/↓ key to select the position to be adjusted on the screen, and then adjust the position using the ←/→ keys.

⓲ RESET key
Press the FUNCTION key and then RESET key on the Remote Commander within 5 seconds to reset the Windows CE.

⓳ PICTURE CONTROL +/– keys
Adjust the picture conditions: CONTR (contrast), BRIGHT (brightness), COLOR, HUE and SHARP (sharpness).

⓴ VOL (volume) +/– keys

㉑ POSITION +/– keys
These keys do not function with this projector.

㉒ FUNCTION key
Press the FUNCTION key and then RESET key on the Remote Commander within 5 seconds to reset the Windows CE.

㉓ ENTER key

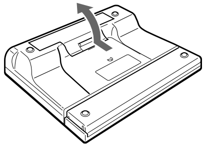
㉔ Arrow keys

㉕ MENU key

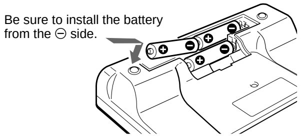
㉖ CONTROL S OUT jack
Connect the supplied remote control cable to this jack and to the CONTROL S IN jack of the projector for wired remote control operation.
When the Commander is connected to the CONTROL S IN/PLUG IN POWER jack of the projector via the remote control cable (stereo), the power for the Remote Commander is supplied from the projector.

Battery installation

1 Push to open the lid.



2 Install three R6 (size AA) batteries (supplied) with the polarities correctly aligned.



3 Replace the lid.

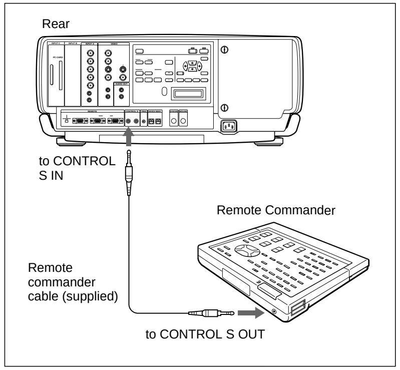
Notes on batteries

- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix old battery with new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on wireless Remote Commander operation

- Be sure that there is nothing to obstruct the infrared beam between the Remote Commander and the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector, the wider the angle within which the commander can control the projector.
- The remote control detectors on the projector do not operate when connecting the remote commander cable to the CONTROL S IN jack. If you wish to use the Remote Commander as a wireless Remote Commander, be sure to remove the remote commander cable from both the Remote Commander and the projector.

To connect the Remote Commander to the projector



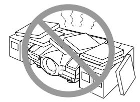
Note on wired Remote Commander operation using the supplied remote commander cable (stereo)

You do not need to install the batteries since the power is supplied from the CONTROL S IN jack on the projector. In this case, the batteries are not consumed.

Precautions on Installation

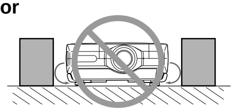
For installation examples with projection distances, see the supplied "Projection Distance Charts."
Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Do not install the projector in an ill-ventilated place



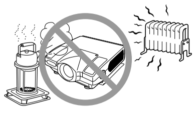
The projector is equipped with ventilation holes for intake on the bottom and front and ventilation holes for exhaust on the left and right sides to prevent internal heat build-up. Do not block these ventilation holes and allow adequate air circulation at an installation location.

Do not place any object beside the projector

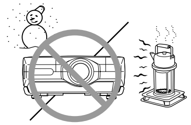


If you put something beside the ventilation holes on the sides, the exhaust may be inhaled into the projector through the ventilation holes (intake) at the bottom, causing the internal temperature to rise and thereby activating the protection circuit. Install the projector so that the exhaust is not blocked.

Do not install the projector in a location where temperature or humidity is very high

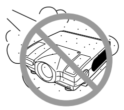


Avoid installing the projector in a location where temperature may rise or fall rapidly

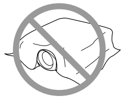


Be careful of air-conditioning and heating in a room where the projector is installed, as sudden changes in temperature may lead to moisture condensation and cause damage to the projector.

Avoid installing the projector in a location subject to excessive dust

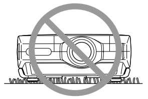


Do not cover the ventilation holes (exhaust)



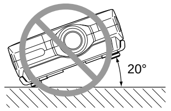
Do not cover the front ventilation holes; otherwise, internal heat may build up.

Do not install the projector on a deep-pile carpet

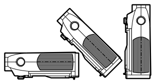


If you install the projector on a deep-pile carpet, the ventilation holes (intake) at the bottom may be blocked, causing an internal heat build-up.

Do not tilt the projector more than 20 degrees



Avoid tilting the projector side to side emore than 20 degrees or installing it other than on the floor or ceiling. Such installations may cause malfunctions such as color irregularity or shortening of lamp life.



The front to back tilt angle of this projector is not limited.

Tips on the Screen

Screen size

The screen size is the diagonal length of the screen in inches, while the aspect ratio of the screen is 3:4. The ratio of the screen height, width, and diagonal is 3:4:5. If you use a screen with 3:4 aspect ratio whose size is not given in the table below, you can calculate the screen height and width from the screen size (inches) as follows.
Calculate at the conversion rate of 25.4 mm to the inch.

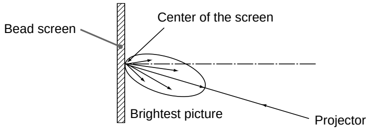
Height (mm) = Screen size $\times$ 25.4 $\times$ $^3/_5$
Width (mm) = Screen size $\times$ 25.4 $\times$ $^4/_5$

Screen size and dimensions

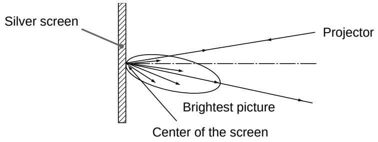
Screen sizes (inches) (Diagonal)	Height (mm)	Width (mm)
60	914	1219
80	1219	1626
100	1524	2032
120	1829	2438
150	2286	3048
180	2743	3658
200	3048	4064
250	3810	5080
300	4572	6096

Types of screen

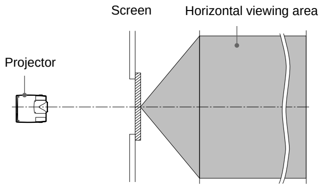
Front projection screen for floor installation
The bead screen is recommended. A screen of this type reflects the brightest light.



Front projection screen for ceiling installation
The silver screen is recommended. You can get a picture that is two to four times brighter than that of the white screen.

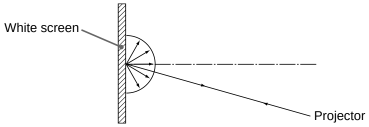


Rear projection screen
The rear projection screen is recommended for a bright and clear full-screen picture projection since the sunlight has little effect on the screen.



Notes
- A moiré pattern may occur in accordance with the pitch of the screen.
- Be sure to confirm the picture quality before installation.

White screen
When viewers watch the projected picture in a wide area, you can obtain a picture that appears equally bright from all parts of the room using the white screen for both floor and ceiling installations.



Attaching the Lens

Attach one of the following types of optional lenses to the projector according to your purpose.

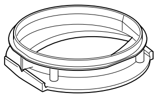
- VPLL-2009 fixed short focus lens
- VPLL-2014 fixed short focus lens
- VPLL-Z3020 1.3-times zoom standard focus lens
- VPLL-Z2025 1.6-times zoom long focus lens
- VPLL-Z2039 1.5-times zoom long focus lens
- VPLL-3050 fixed long focus lens
- VPLL-2075 fixed long focus lens
- VPLL-Z2019 1.3-times zoom standard focus lens

To attach the lens, follow the steps below.

Before attaching the lens

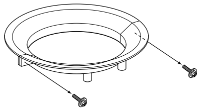
The lens ring used for the lens and the attaching method vary depending on the types of lenses. Check your lens type by referring below.

Unit type lens ring (supplied with the projector)



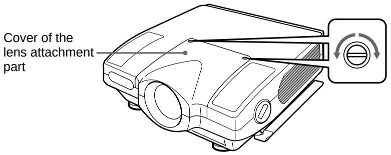
The unit type lens ring is used for the VPLL-Z2025, VPLL-Z2039, VPLL-2075 and VPLL-3050.

Assembly type lens ring (attached to the projector)

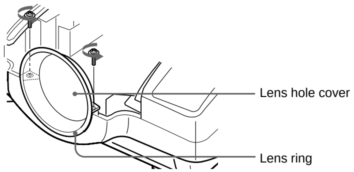


The assembly type lens ring is used for the VPLL-2014, VPLL-2009 and VPLL-Z2019. For the VPLL-2014 and VPLL-2009, disassemble the ring by removing the screws before attaching.
For VPLL-Z2019 and VPLL-Z3020, attach the lens ring without disassembling.

1 Turn the screws on the lens attachment part either clockwise or counterclockwise by 90 degrees with a screwdriver, then remove the cover from the lens attachment part.

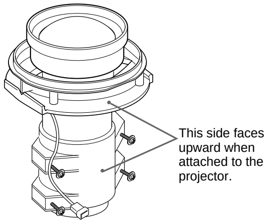

Cover of the lens attachment part

2 Remove the lens ring and the lens hole cover.

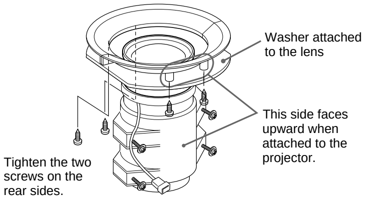

Lens hole cover
Lens ring

3 Attach the lens ring to the lens.

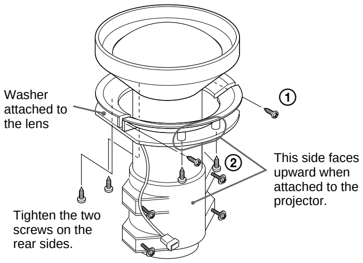
For VPLL-Z2025, VPLL-Z2039, VPLL-2075 and VPLL-3050
When using the VPLL-3050, remove the washer by removing the four screws.


This side faces upward when attached to the projector.

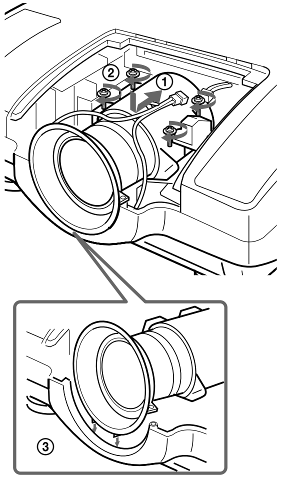
For VPLL-Z2019 and VPLL-Z3020
Attach the lens washer to the lens ring with the four screws.


Washer attached to the lens
This side faces upward when attached to the projector.
Tighten the two screws on the rear sides.

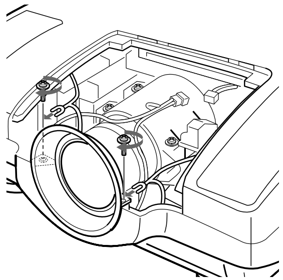
For VPLL-2014 and VPLL-2009
① Disassemble the lens ring and attach it to the lens.
② Attach the lens washer to the lens ring with the four screws.


Washer attached to the lens
①
②
This side faces upward when attached to the projector.
Tighten the two screws on the rear sides.

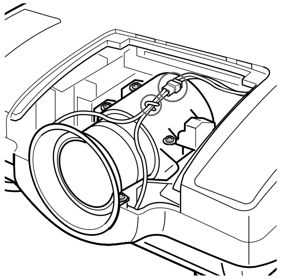
4 Mount the lens onto the projector.
① Install the lens onto the projector, and push the lens until it touches the stopper.
② Secure the lens by tightening the four screws.
③ Fit the projections on the lens ring to the groove on the projector.



5 Tighten two screws, with the cords put on the ring, to secure the ring and cords.



6 Attach the connector from the lens to the projector and fix it with the cable harness.



7 Replace the cover for the lens attachment part and tighten the screws.

Notes
- When attaching the lens, be careful not to overtighten the screws.
- The lens scratches easily, so when handling it, always place it gently on a stable and level surface in a horizontal position.
- Avoid touching the lens surface.

Connection Examples

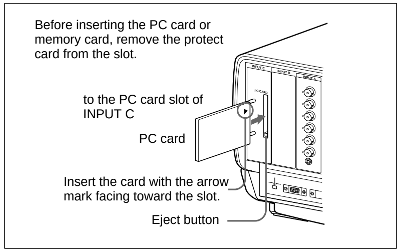
Also refer to the instruction manual of the equipment to be connected.

Connecting to LAN

Installing a PC card

When you use the LAN PC card, wireless LAN PC card or memory card, insert the card into the PC card slot of INPUT C of the projector and set the INPUT C/ RS-232C/RS-422A select switch to INPUT C.
When the PC card is inserted into the slot, the eject button pops out.

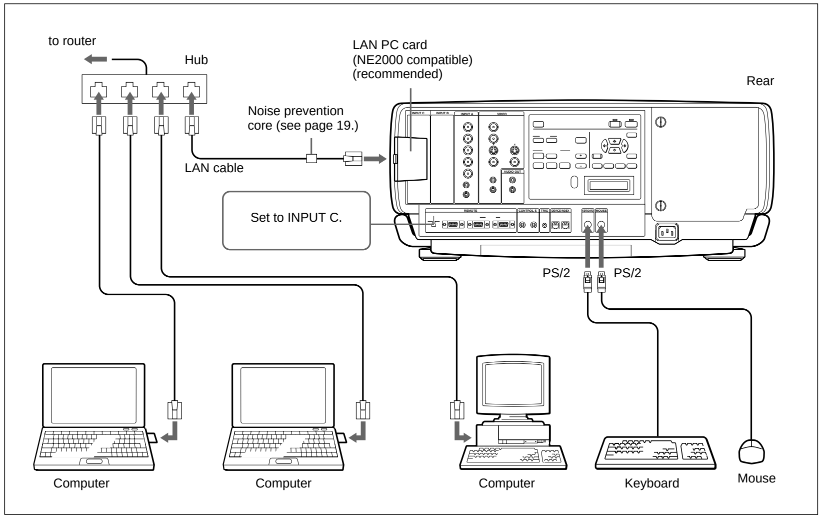
To remove the PC card from the slot, press the eject button.


Before inserting the PC card or memory card, remove the protect card from the slot.
to the PC card slot of INPUT C
PC card
Insert the card with the arrow mark facing toward the slot.
Eject button

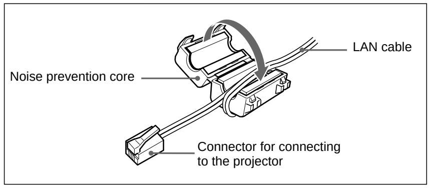
Notes

- For details of the recommended PC card or wireless LAN access point, see the attached “Recommended PC card/wireless LAN access point”.
- When you use LAN , you must set the IP address. For details of setting the IP address, etc., see the attached “Operating Instructions for Networking.”

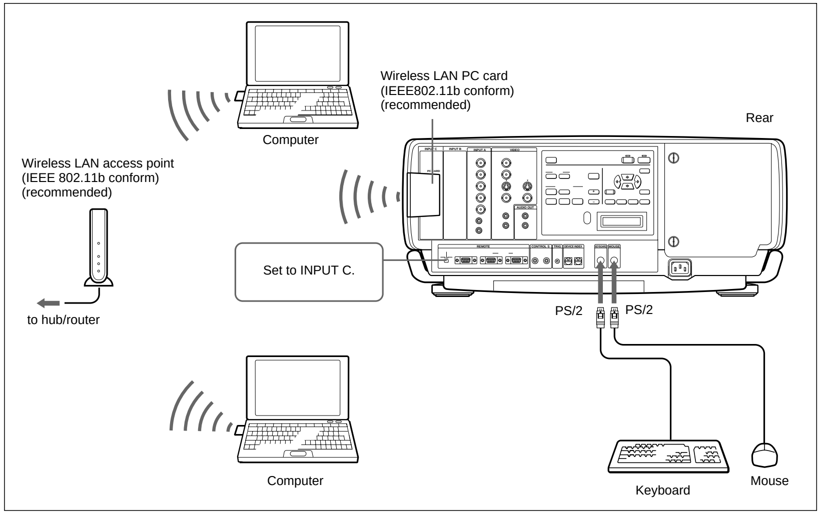
Connection of LAN PC card


to router
Hub
LAN PC card (NE2000 compatible) (recommended)
Rear
Noise prevention core (see page 19.)
LAN cable
Set to INPUT C.
PS/2
PS/2
Computer
Computer
Computer
Keyboard
Mouse

When connecting the projector to LAN
Attach the supplied noise prevention core near to the projector of the LAN cable.
When the shielded LAN cable is used, you do not need to attach the noise prevention core.


Noise prevention core
LAN cable
Connector for connecting to the projector

Connection of wireless LAN PC card


Computer
Wireless LAN PC card (IEEE802.11b conform) (recommended)
Rear
Wireless LAN access point (IEEE 802.11b conform) (recommended)
Set to INPUT C.
to hub/router
PS/2
PS/2
Computer
Keyboard
Mouse

Installing a Memory Card

You can memorize the presentation file made by the Microsoft PowerPoint in the memory card and show the file by inserting the memory card into the PC card slot of the projector.
For attaching and removing the memory card, see “Installing a PC card” on page 18.
For details of the recommended PC card, see the attached “Recommended PC card/wireless LAN access point.”

http://getMANUAL.com

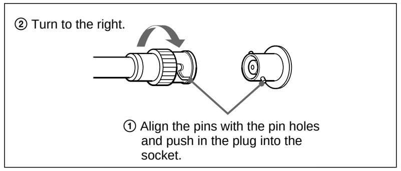
Connection Examples

Connecting with a Computer, VCR or Active Speakers

When making connections, be sure to:

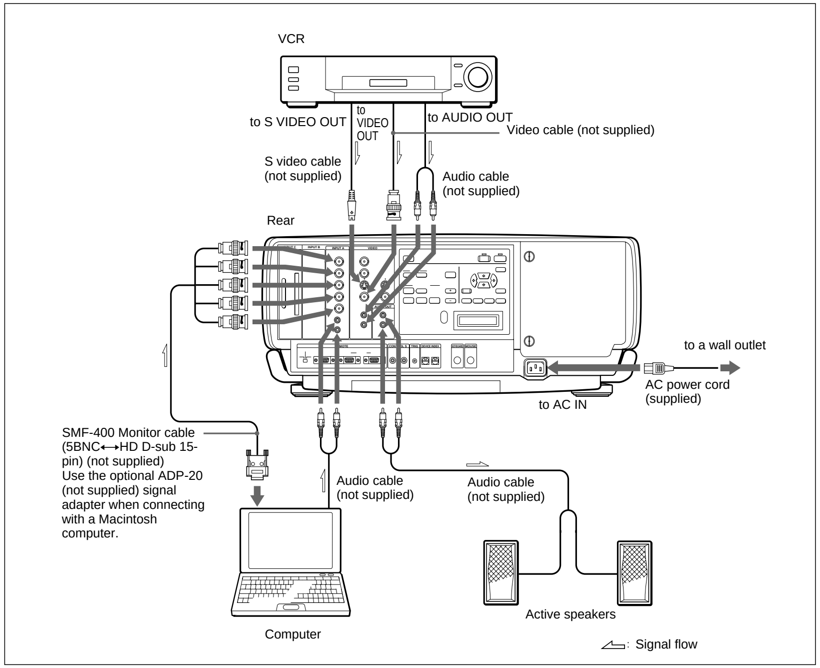
- turn off all equipments before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted may generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Connecting a BNC connector



② Turn to the right.

① Align the pins with the pin holes and push in the plug into the socket.


VCR
to S VIDEO OUT
to VIDEO OUT
to AUDIO OUT
Video cable (not supplied)
S video cable (not supplied)
Audio cable (not supplied)
Rear
to a wall outlet
AC power cord (supplied)
to AC IN
Audio cable (not supplied)
Audio cable (not supplied)
Computer
Active speakers
Signal flow

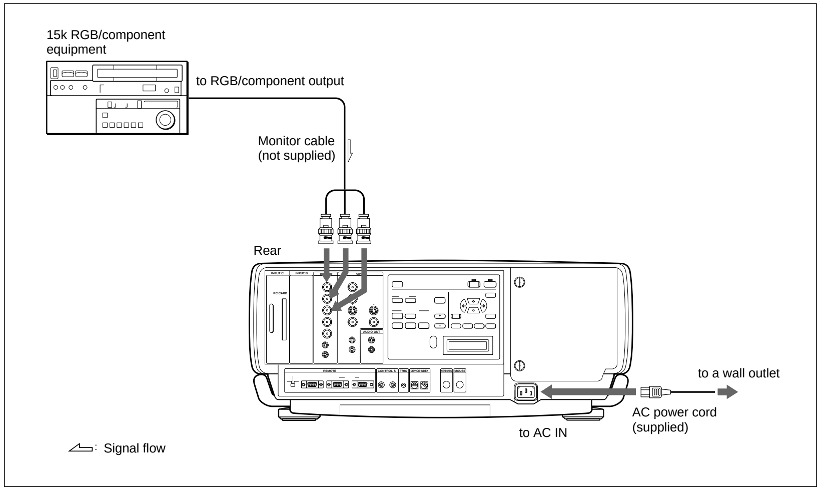
SMF-400 Monitor cable (5BNC↔HD D-sub 15-pin) (not supplied)
Use the optional ADP-20 (not supplied) signal adapter when connecting with a Macintosh computer.

Note

Set INPUT-A in the SIGNAL SELECT menu to COMPUTER.
For details, see page 36.

Connecting 15k RGB/Component Equipment

For details of connections, see “When making connectins, be sure to” on previous page.


15k RGB/component equipment
to RGB/component output
Monitor cable (not supplied)
Rear
to a wall outlet
AC power cord (supplied)
to AC IN
Signal flow

Note

Switch the input signal with the INPUT-A item in the SIGNAL SELECT menu.
For details, see page 36.

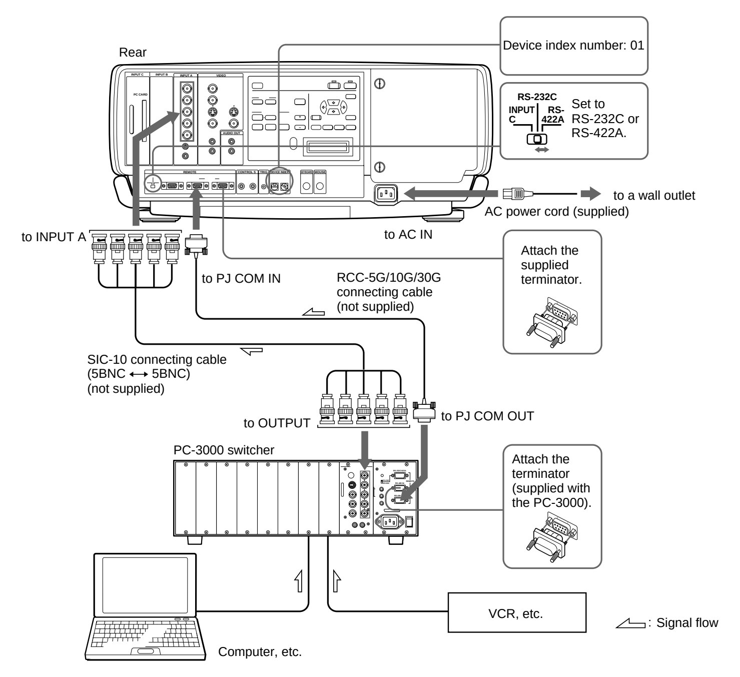
Connecting the Switcher

Use the optional PC-3000 Signal Interface Switcher for connecting various video equipment. The input can be selected by pressing the SWITCHER/VIDEO MEMORY/INDEX keys on the Remote Commander.
For selecting the input from the switcher, see page 12.

Notes

- When you select the input from the switcher, be sure to set the SWITCHER/VIDEO MEMORY/INDEX select switch to the SWITCHER position.
- When connecting the switcher, use the wired Remote Commander. If you use the wireless Remote Commander, it activates the remote control detector on only one unit of the equipment connected through the PJ COM connector. For the other equipment, set SIRCS RECEIVER in the SET SETTING menu to OFF to deactivate the remote control detectors.
For details, see page 35.
- After all the connections are completed, attach the terminator (supplied) to the PJ COM connector on both the projector and switcher to which nothing is connected.

To connect a single switcher

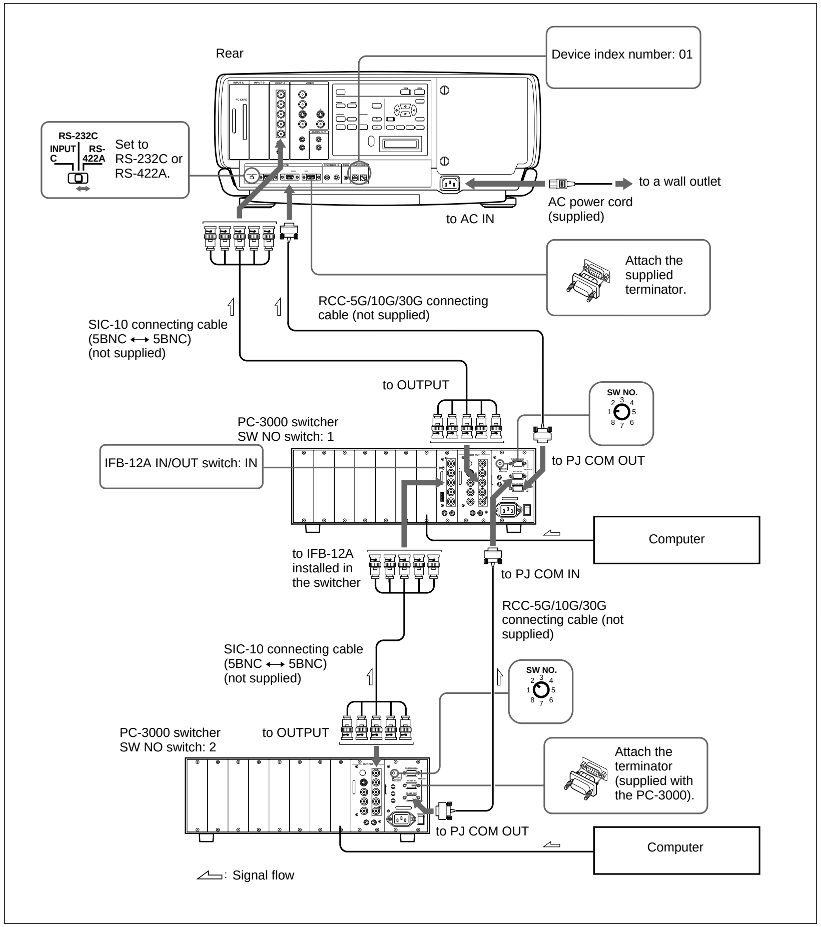


Rear
Device index number: 01
RS-232C
INPUT C
RS-422A
Set to RS-232C or RS-422A.
to a wall outlet
AC power cord (supplied)
to AC IN
to INPUT A
to PJ COM IN
RCC-5G/10G/30G connecting cable (not supplied)
Attach the supplied terminator.
SIC-10 connecting cable (5BNC ↔ 5BNC) (not supplied)
to OUTPUT
to PJ COM OUT
PC-3000 switcher
Attach the terminator (supplied with the PC-3000).
VCR, etc.
Computer, etc.
: Signal flow

To connect two switchers

Notes

- Set the device index number of the projector to be connected to the switcher to 01.
- Set the SW NO switch on the switcher to be connected to the projector to 1. Install the IFB-12A interface board onto the switcher, and set the IN/OUT switch on the IFB-12A to IN.



Rear
Device index number: 01
RS-232C
INPUT C
RS-422A
Set to RS-232C or RS-422A.
to a wall outlet
AC power cord (supplied)
to AC IN
Attach the supplied terminator.
RCC-5G/10G/30G connecting cable (not supplied)
SIC-10 connecting cable (5BNC ↔ 5BNC) (not supplied)
to OUTPUT
PC-3000 switcher SW NO switch: 1
SW NO.
IFB-12A IN/OUT switch: IN
to PJ COM OUT
Computer
to IFB-12A installed in the switcher
to PJ COM IN
RCC-5G/10G/30G connecting cable (not supplied)
SIC-10 connecting cable (5BNC ↔ 5BNC) (not supplied)
SW NO.
PC-3000 switcher SW NO switch: 2
to OUTPUT
Attach the terminator (supplied with the PC-3000).
to PJ COM OUT
Computer
: Signal flow

Connecting Multiple Projectors

Following are examples of multiple projectors installed onto the optional SU-PJ2000 projector stand, such as by stacking.

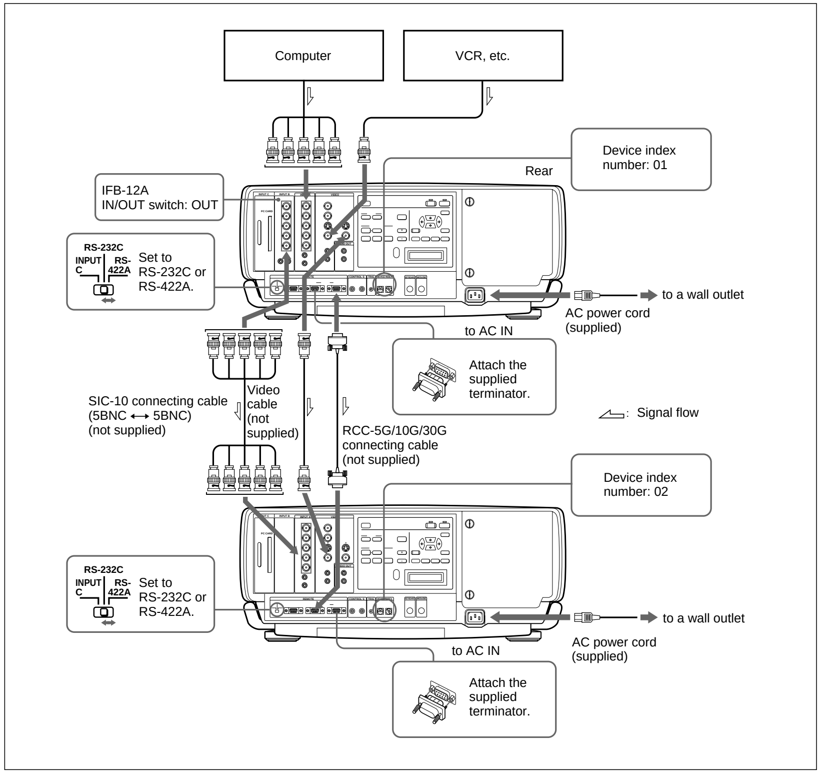
For details on the SU-PJ2000 projector stand, refer to the installation manual supplied with it.

When not using the switcher

Install the optional IFB-12A interface board in the first projector.
Set the IN/OUT switch on the IFB-12A to OUT.
For details on the IFB-12A interface board, refer to the operating instructions supplied with it.

Note

Installing the interface board and setting up the switch must be done while the power of the projector is off.

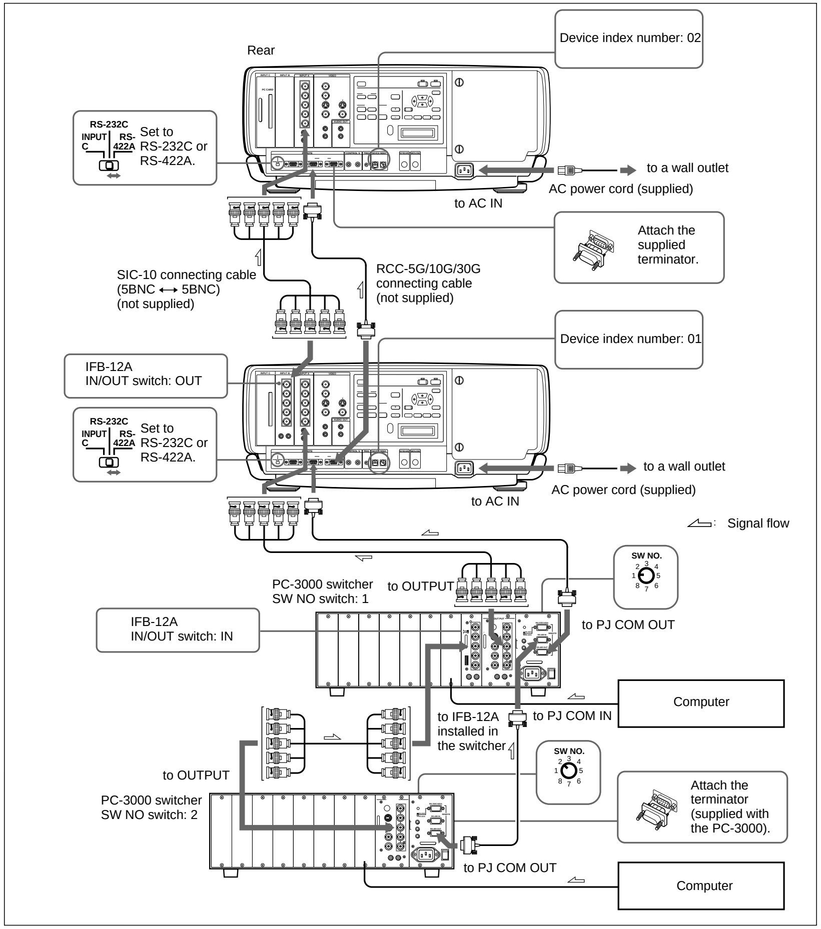

Computer
VCR, etc.
Device index number: 01
Rear
IFB-12A IN/OUT switch: OUT
RS-232C
INPUT C
RS-422A
Set to RS-232C or RS-422A.
to a wall outlet
AC power cord (supplied)
to AC IN
Attach the supplied terminator.
SIC-10 connecting cable (5BNC ↔ 5BNC) (not supplied)
Video cable (not supplied)
RCC-5G/10G/30G connecting cable (not supplied)
: Signal flow
Device index number: 02
RS-232C
INPUT C
RS-422A
Set to RS-232C or RS-422A.
to a wall outlet
AC power cord (supplied)
to AC IN
Attach the supplied terminator.

When using the switcher

When connecting two PC-3000 switchers, up to 15 inputs can be selected as the input from the switchers. Install the IFB-12A interface board in the first switcher (on which you set the SW NO switch to 1) and set the IN/OUT switch on the board to IN.

Notes

- Be sure to set the switcher number.
- Be sure to turn off the power of the projector when setting up the device index number and connecting cables.


Device index number: 02
Rear
RS-232C
INPUT C
RS-422A
Set to RS-232C or RS-422A.
to a wall outlet
AC power cord (supplied)
to AC IN
Attach the supplied terminator.
SIC-10 connecting cable (5BNC ↔ 5BNC) (not supplied)
RCC-5G/10G/30G connecting cable (not supplied)
Device index number: 01
IFB-12A IN/OUT switch: OUT
RS-232C
INPUT C
RS-422A
Set to RS-232C or RS-422A.
to a wall outlet
AC power cord (supplied)
to AC IN
: Signal flow
SW NO.
PC-3000 switcher SW NO switch: 1
to OUTPUT
IFB-12A IN/OUT switch: IN
to PJ COM OUT
Computer
to IFB-12A installed in the switcher
to PJ COM IN
SW NO.
to OUTPUT
PC-3000 switcher SW NO switch: 2
Attach the terminator (supplied with the PC-3000).
to PJ COM OUT
Computer

Confirming the System Construction

After all the connections are complete, confirm that equipment of the system is properly setup.

1 Connect the AC cords of all equipment to the AC outlets.

2 Press the SYS SET key on the Remote Commander.
You can also press the LIGHT and RESET keys simultaneously on the control panel for the same effect.
Information on the system construction and the settings of the interface boards, etc. are automatically confirmed. Then the message disappears.

Note

When you want to use the projector without connecting the switcher after using the switcher in the system connections, it is necessary to confirm the system construction again by pressing the SYS SET key or the LIGHT and RESET keys after all the connections are completed. If you press the key(s), “Master Switcher not exist” appears, but the system construction is automatically recognized.

When a system error is detected

The following messages are displayed on the screen and display window:

Message	Remedy
Master Switcher not exist.	Set the switcher that outputs the signal to the projector to number 1.
Same DEVICE INDEX for Projector detected.	Change either number of the projectors that have the same number.
Same DEVICE INDEX for Switcher detected.	Change either number of the switchers that have the same number.

Note

If the switcher is in standby mode, the message appears only in the message display window.

Setting the Index Numbers

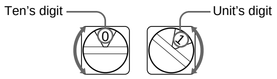
When you connect multiple projectors in your system, you have to set the group index and device index numbers for each projector.

To set the group index number

If you set the same group index number for multiple projectors, you can operate multiple projectors and switchers simultaneously (such as input selection) by designating the number.
The group index number can be set in the menu.
For group index number setting, see page 35.

To set the device index number

If you set the device index number, you can control each projector individually with the supplied Remote Commander.
The device index number can be set with the DEVICE INDEX switches on the rear of the projector. It is set to “01” at the factory.
If only one projector is connected, set it to “01.”

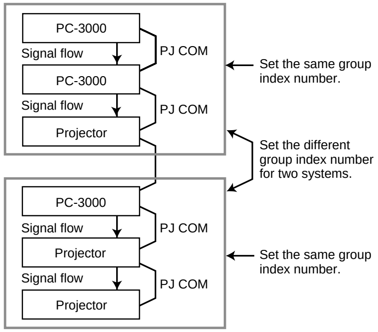


Notes

- Do not set the same device index number for the projectors in the same system.
- Do not set the number to “00.” If you do, the projector will be operated only with the keys on the control panel. It cannot be controlled with the wired or wireless Remote Commander, or with an external equipment to which the PJ COM connectors are connected.

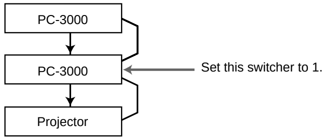
Notes on setting of the index number

- **Set the same group index number for all equipment of the same system connection (those on the signal route between the signal source and the projector).**


PC-3000
Signal flow
PC-3000
Signal flow
Projector
PJ COM
PJ COM
Set the same group index number.
Set the different group index number for two systems.
PC-3000
Signal flow
Projector
Signal flow
Projector
PJ COM
PJ COM
Set the same group index number.

For setting the group index number, see “GROUP INDEX” on page 35.

- **Set the correct group and device index numbers and the switcher number.**
  Do not set the same device index number or the same switcher number in one group.
  For example, if there are different pieces of equipment with the switcher number 1, the error message will appear when the SYS SET key is pressed.
- **Set the switcher that outputs the signal to the projector to number 1.**

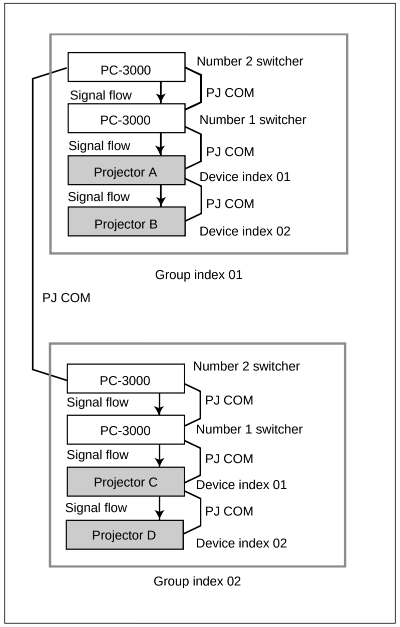


Notes on connections when two or more switchers are used

- **Mount the IFB-12A interface board to the slot 1 of the number n switcher and connect the output connector of the number (n+1) switcher to the IFB-12A.**
- **You can attach the IFB-12A signal interface board (when the IN/OUT switch is set to OUT) only to the number 1 switcher.**

To select the projector by designating the index numbers

When the switchers and projectors are connected as illustrated, select the desired projector by pressing the keys on the Remote Commander as shown below.


PC-3000
Number 2 switcher
Signal flow
PJ COM
PC-3000
Number 1 switcher
Signal flow
PJ COM
Projector A
Device index 01
Signal flow
PJ COM
Projector B
Device index 02
Group index 01
PJ COM
PC-3000
Number 2 switcher
Signal flow
PJ COM
PC-3000
Number 1 switcher
Signal flow
PJ COM
Projector C
Device index 01
Signal flow
PJ COM
Projector D
Device index 02
Group index 02

Example:

To select all the projectors
GROUP → ALL → ENTER → ALL → ENTER
Projectors A, B, C and D are selected.

To select projectors with device index 01 from all the groups
GROUP → ALL → ENTER → 1 → ENTER
Projectors A and C are selected.

To select a projector with device index 01 from group index 02
GROUP → 2 → ENTER → 1 → ENTER
Projector C is selected.

To select all the projectors from group index 02
GROUP → 2 → ENTER → ALL → ENTER
Projectors C and D are selected.

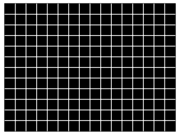
Notes

- Set the group index and device index numbers correctly. If more than two projectors are set to the same group index and device index numbers, an error message will be displayed when the SYS SET key is pressed.
- If the group index is a tens digit number, press the GROUP key before each press of the number key.
  Example:
  To select a projector with device index 13 of group index 12
  GROUP → 1 → GROUP → 2 → ENTER → 1 → 3 → ENTER

Adjusting the Picture

This section describes how to adjust the focus, size and vertical position of the picture when the projector is installed on the floor. For twin/triple stack installation, refer to the Installation Manual supplied with the SU-PJ2000 projector stand.

1 Press the PATTERN key on the Remote Commander or the control panel to display the HATCH pattern.



2 Press the FOCUS key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the focus.

“FOCUS” appears on the screen during adjustment.

3 Press the ZOOM key then the ↑ or ↓ key on the Remote Commander or the control panel to adjust the picture size.

“ZOOM” appears on the screen during adjustment.

Note

If the optional VPLL-2075, VPLL-2014, VPLL-2009 or VPLL-3050 lens is installed, you cannot adjust the zoom.

4 Press the FOCUS and arrow keys on the Remote Commander or the control panel to adjust the focus again.

“FOCUS” appears on the screen during adjustment.

5 Press the SHIFT key then the arrow keys on the Remote Commander or the control panel to adjust the vertical position of the picture.

“PICTURE SHIFT” appears on the screen during adjustment.

6 Press the PATTERN key again to clear the HATCH pattern.

Note

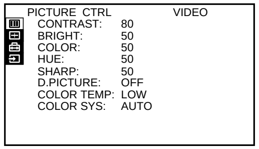
Do not look into the lens when the projector lamp is on.

Using the Menu

The projector is equipped with an on-screen menu for making various adjustments and settings. Unadjustable items are not displayed in the menu.

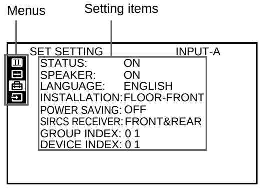
To change the language used in the menu, see page 35.

1 Press the MENU key.
The menu display appears.
The menu presently selected is highlighted in yellow.



```
PICTURE CTRL          VIDEO
  CONTRAST:    80
  BRIGHT:      50
  COLOR:       50
  HUE:         50
  SHARP:       50
  D.PICTURE:   OFF
  COLOR TEMP:  LOW
  COLOR SYS:   AUTO
```

2 Use the ↑ or ↓ key to select a menu, then press the → or the ENTER key.
The setting items of the selected menu are displayed.



```
SET SETTING                INPUT-A
  STATUS:          ON
  SPEAKER:         ON
  LANGUAGE:        ENGLISH
  INSTALLATION:    FLOOR-FRONT
  POWER SAVING:    OFF
  SIRCS RECEIVER:  FRONT&REAR
  GROUP INDEX:     0 1
  DEVICE INDEX:    0 1
```

3 Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

4 Adjust an item.
- **When changing the adjustment level:**
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.

- **When changing the setting:**
  Press the ↑ or ↓ key to change the setting, then press the ← or the ENTER key.
  The original screen is restored.

For details on setting individual items, see the relevant menu pages.

To erase the menu display

Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

To reset settings that have been adjusted

Press the RESET key.
"Reset complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

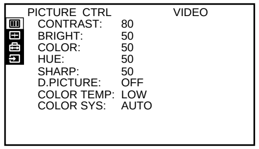
Items that can be reset are as follows:
CONTRAST, BRIGHT, COLOR, HUE, SHARP, DOT PHASE, SIZE, SHIFT and BLANKING.

About the memory of the settings

The settings are automatically stored in the projector memory.

The PICTURE CTRL Menu

The PICTURE CTRL menu is used for adjusting the picture. Unadjustable items are not displayed in the menu.



```
PICTURE CTRL          VIDEO
  CONTRAST:    80
  BRIGHT:      50
  COLOR:       50
  HUE:         50
  SHARP:       50
  D.PICTURE:   OFF
  COLOR TEMP:  LOW
  COLOR SYS:   AUTO
```

CONTRAST

Adjusts the picture contrast.
The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT (Brightness)

Adjusts the picture brightness.
The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

COLOR

Adjusts color intensity.
The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

Adjusts the color tones.
At high settings, the picture becomes greenish.
At low settings, the picture becomes purplish.

SHARP (Sharpness)

Adjusts the picture sharpness.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

Emphasizes the black color.
ON: Emphasizes the black color to produce a bolder "dynamic" picture.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

COLOR TEMP (temperature)

Adjusts the color temperature.
HIGH: Makes the white color bluish.
LOW: Makes the white color reddish.

COLOR SYS (system)

Selects the color system of the input signal.
Normally, set to AUTO.
If the picture is distorted or colorless, select the color system ($NTSC_{3.58}$/PAL/SECAM/$NTSC_{4.43}$/PAL-M) according to the input signal.

GAMMA MODE

Select either position to obtain an optimum picture.
GRAPHICS: Improves the reproduction of half tones. Photos can be reproduced in natural tones.
TEXT: Contrasts black and white. Suitable for images with lots of text.

Input signals and adjustable/setting items

Item	Input signal					
	Video or S video	15k RGB	Compo-nent/ Progressive component	RGB (preset)	RGB (preset) (HDTV, DTV)	RGB (not preset)
CONTRAST	Y	Y	Y	Y	Y	Y
BRIGHT	Y	Y	Y	Y	Y	Y
COLOR	Y	Y	Y	N	Y	N
HUE	Y (NTSC 3.58/ 4.43[1] only)	Y	Y	N	Y	N
SHARP	Y	Y	Y	N	Y	N
D. PICTURE	Y	N	Y	N	N	N
COLOR TEMP	Y	Y	Y	Y	Y	Y
COLOR SYS	Y	N	N	N	N	N
GAMMA MODE	N	N	N	Y	N	Y

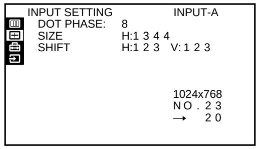
Y: Adjustable/can be set
N: Not adjustable/cannot be set

---

1) $NTSC_{4.43}$ is the color system used when playing back a video recorded in NTSC color system on a $NTSC_{4.43}$ system VCR.

The INPUT SETTING Menu

The INPUT SETTING menu is used to change the settings of the input signal. Unadjustable items, which vary according to the input signal, are not displayed in the menu.



```
INPUT SETTING            INPUT-A
  DOT PHASE:    8
  SIZE          H:1 3 4 4
  SHIFT         H:1 2 3  V:1 2 3

                         1024x768
                         NO . 2 3
                         →    2 0
```

DOT PHASE

Adjusts the phase of the LCD panel and the input signal when H FILTER is set to OFF.
Adjust the value to obtain the clearest picture.

SIZE

Adjusts the horizontal size of the picture.
As the setting for H increases, the horizontal size of the picture becomes larger, and as the setting decreases, the size becomes smaller. Adjust the setting according to the input signal.
Use the ← or → key to adjust the horizontal size.

SHIFT

Adjusts the position of the picture.
H adjusts the horizontal position of the picture, and V adjusts the vertical position. As the setting for H increases, the picture moves to the right, and as the setting decreases, it moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, it moves down.
Use the ← or → key to adjust the horizontal position and the ↑ or ↓ key for the vertical position.

SCAN CONV (converter)

Converts the signal to display the picture so that it fits the screen size.

ON: Displays the picture to fill the 4:3 screen. The picture will lose some clarity.

OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

Note

The function does not work for signals in Memory No. 32 and 33.

ASPECT

Sets the aspect ratio of the picture.
When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.

4:3: When the picture with ratio 4:3 is input

16:9: When the picture with ratio 16:9 (squeezed) is input

H FILTER

Corrects the vertical bands that appear on the picture.
The vertical bands may occur when an RGB signal with horizontal resolution of more than 1280 × 1024 pixels is input. In such cases, set to ON. The picture will loose some clarity, but the vertical bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the LCD.

BLANKING

Adjusts if excess signals are seen with the picture, or the whole picture is not seen clearly.
Select BLANKING, then press the ENTER key to display the blanking adjustment screen.
Use the ↑ or ↓ key to select the part to be adjusted (TOP, BOTOM, RIGHT or LEFT), and the ← or → key to adjust.

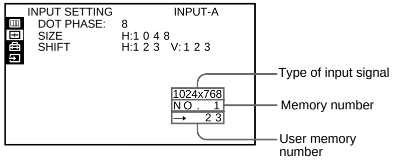
Input signals and adjustable/setting items

Item	Input signal				
	Video or S video	15k RGB	Component/ Progressive component	RGB (preset)	RGB (not preset)
DOT PHASE	N	N	N	Y (except for HDTV, DTV)	Y
SIZE	N	N	Y	Y	Y
SHIFT	Y	Y	Y	Y	Y
SCAN CONV	N	N	N	Y (Only for lower resolution than SXGA)	Y (Only for lower resolution than SXGA)
ASPECT	Y	Y	Y	N	N
H FILTER	N	N	N	Y (UXGA only)	Y (UXGA only)
BLANKING	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (HDTV, DTV only)	Y

Y: Adjustable/can be set
N: Not adjustable/cannot be set

INPUT MEMORY No.

The upper number indicates the memory number of the current input signal. The lower number indicates the user memory number.



```
INPUT SETTING            INPUT-A
  DOT PHASE:    8
  SIZE          H:1 0 4 8
  SHIFT         H:1 2 3  V:1 2 3

                         1024x768
                         NO .   1
                         →    2 3
```

About the memory function

The adjustment data for 48 types of input signals are preset at the factory (preset memory).
When a signal is input to the projector, the signal type is automatimally detected and the data for the signal is called from the memory to display an optimum picture.
The data can be adjusted in the INPUT SETTING menu and the adjusted data will be saved as user memory.
When you save more than 200 user memories, the newest one always overwrites the oldest one.
The saved user memory number is displayed in the INPUT SETTING menu as → NO. ☐☐.
When an RGB signal other than the preset signals is input to the projector, the memory number is displayed as 0 and the closest option is automatically selected from the preset 48 types of signals.

Notes

- When an RGB signal is input with sync on Green including external sync, the picture tone may be greenish. In this case, disconnect the external sync signal.
- When an HDTV 1035/60i signal is input, the picture will appear smaller. Adjust SIZE, SHIFT and BLANKING referring to the following levels as a standard.

SIZE	H: 1479
SHIFT	H: 321
	V: 41
BLANKING	TOP: 167
	BOTTOM: 167
	RIGHT: 27
	LEFT: 27

- If SCAN CONV is set to ON when a signal in Memory No. 34–38 is input, the picture will appear widened. Adjust SIZE and SHIFT, referring to the following levels as a standard.

Memory No.		34	35	36	37	38
SIZE		1590	1575	1590	1582	1620
SHIFT	**H**	181	170	182	146	154
	V	18	32	36	36	42

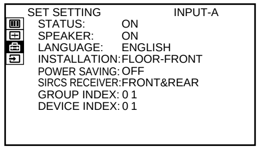
(continued)

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Horizontal size
1	Video 60 Hz		15.73	59.94	—	—
2	Video 50 Hz		15.63	50.00	—	—
3	15k RGB (60 Hz)		15.73	59.94	S on G	—
4	15k RGB (50 Hz)		15.63	50.00	S on G	—
5	HDTV		33.75	60.00	S on Y/G	1543
6	640 × 350	VGA-1 (VGA350)	31.47	70.09	H-pos V-neg	800
7		VESA* 85(VGA350)	37.86	85.08	H-pos V-neg	832
8	640 × 400	NEC PC98	24.82	54.42	H-neg V-neg	848
9		VGA-2 (TEXT) /VESA70	31.47	70.09	H-neg V-pos	800
10		VESA 85 (VGA400)	37.86	85.08	H-neg V-pos	832
11	640 × 480	VGA VESA60	31.47	59.94	H-neg V-neg	800
12		Mac 13	35.00	66.67	S on G	864
13		VGA VESA 72	37.86	72.81	H-neg V-neg	832
14		VGA VESA 75 (IBM M3)	37.50	75.00	H-neg V-neg	840
15		VGA VESA 85 (IBM M4)	43.27	85.01	H-neg V-neg	832
16	800 × 600	SVGA VESA 56	35.16	56.25	H-pos V-pos	1024
17		SVGA VESA 60	37.88	60.32	H-pos V-pos	1056
18		SVGA VESA 72	48.08	72.19	H-pos V-pos	1040
19		SVGA VESA 75 (IBM M5)	46.88	75.00	H-pos V-pos	1056
20		SVGA VESA 85	53.67	85.06	H-pos V-pos	1048
21	832 × 624	Mac 16	49.72	74.55	H-neg V-neg	1152
22	1024 × 768	XGA VESA 43 (8514)	35.52	86.96	H-pos V-pos	1264
23		XGA VESA 60	48.36	60.00	H-neg V-neg	1344
24		XGA VESA 70	56.48	69.96	H-neg V-neg	1328
25		XGA VESA 75	60.02	75.03	H-pos V-pos	1312
26		XGA VESA 85	68.68	85.00	H-pos V-pos	1376
27	1152 × 864	VESA 70	64.00	70.02	H-pos V-pos	1472
28		VESA 75	67.50	75.00	H-pos V-pos	1600
29		VESA 85	77.49	85.06	H-pos V-pos	1568
30	1152 × 900	SUN LO	61.80	65.96	H-neg V-neg	1504
31		SUN HI	71.71	76.05	C-neg	1472
32	1280 × 960	VESA 60	60.00	60.00	H-pos V-pos	1800
33		VESA 75	75.00	75.00	H-pos V-pos	1728
34	1280 × 1024	SXGA VESA 43	46.43	86.87	H-pos V-pos	1696
35		SGI-5	53.32	50.06	H-neg V-neg	1680
36		SXGA VESA 60	63.97	60.01	S on G	1696
37		SXGA VESA 75	79.98	75.03	H-pos V-pos	1688
38		SXGA VESA 85	91.15	85.02	H-pos V-pos	1728
39	1600 × 1200	UXGA VESA 60	75.00	60.00	H-pos V-pos	1689
40		UXGA VESA 65	81.91	65.53	H-pos V-pos	1689
41		UXGA VESA 75	93.75	75.00	H-pos V-pos	1689
43	480/60p (Progressive component)		31.47	60.00	S on G	1605
44	575/50p (Progressive component)		31.25	50.00	S on G	1616
45	1080/50i		28.13	50.00	—	1852
47	720/60p		45.00	60.00	—	1736
48	720/50p		37.50	50.00	—	2084
49	1080/24PsF		27.00	48.00	—	1929

* VESA is a registered trademark of Video Electronics Standard Association.

The SET SETTING Menu

The SET SETTING menu is used for changing the initial settings of the projector. Unadjustable items are not displayed in the menu.



```
SET SETTING                INPUT-A
  STATUS:           ON
  SPEAKER:          ON
  LANGUAGE:         ENGLISH
  INSTALLATION:FLOOR-FRONT
  POWER SAVING: OFF
  SIRCS RECEIVER:FRONT&REAR
  GROUP INDEX: 0 1
  DEVICE INDEX: 0 1
```

STATUS

Sets up the on-screen display.

ON: Shows all of the on-screen displays.

OFF: Turns off the on-screen displays except for the menus and warning messages.

SPEAKER

Set to OFF to cut off the sound of the internal speaker when external speakers are connected. When set to OFF, “SPEAKER OFF” appears on the screen when you turn on the power.

LANGUAGE

Selects the language used in the menu and on-screen displays.

Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

INSTALLATION

Reverses the picture horizontally or vertically.

FLOOR-FRONT: The picture is not reversed.

CEILING-FRONT: The picture is reversed horizontally and vertically.

FLOOR-REAR: The picture is reversed horizontally.

CEILING-REAR: The picture is reversed vertically.

Note

In case of using a mirror, be careful of installation since the picture may be reversed.

POWER SAVING

When set to ON, the projector goes into the power saving mode and the lamp for light source turns off if no signal is input for about 10 minutes.

The power saving mode is canceled when a signal is input or any key is pressed.

SIRCS RECEIVER

Selects the remote control detectors to be activated. Change the setting if the wireless Remote Commander does not work properly due to the influence of the fluorescent lamp, etc.

FRONT & REAR: Activates both the front and rear detectors.

FRONT: Activates the front detector only.

REAR: Activates the rear detector only.

OFF: Activates neither the front nor rear detector.

Note

When set to OFF, the wireless Remote Commander does not function. Use the keys on the control panel or the wired Remote Commander.

GROUP INDEX

Groups multiple projectors or switchers to operate them simultaneously.

You can set the group index number to the desired number between 01 and 99.

For details for setting the group index, see pages 27 and 28.

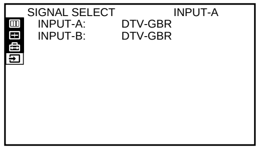
DEVICE INDEX

Displays the index number set with the INDEX switches on the rear of the projector. You can check the device index number but cannot set it with this menu.

For details for setting the number, see page 27.

The SIGNAL SELECT Menu

The SIGNAL SELECT Menu is used for selecting the input signal.
Depending on the interface board installed in the projector, some items may not be displayed in the menu.



```
SIGNAL SELECT            INPUT-A
  INPUT-A:      DTV-GBR
  INPUT-B:      DTV-GBR
```

Use the ⬆ or ⬇ key to select the input, then press the ENTER key.

INPUT-A

Selects audio and video signals input from the INPUT A connectors.

COMPUTER: Inputs the signal from a computer or the RGB signal for a still picture.
COMPONENT: Inputs the component signal.
DTV-YP_BP_R: Inputs the DTV (YP_BP_R) or HDTV (YP_BP_R) signal.
DTV-GBR: Inputs the DTV (GBR) or HDTV (GBR) signal.

Note

When the PC-3000 signal interface switcher is connected to the INPUT A connectors, you cannot select the item.

INPUT-B

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT B section.

COMPUTER: Inputs the signal from a computer or the RGB signal for a still picture.
COMPONENT: Inputs the component signal.
DTV-YP_BP_R: Inputs the DTV (YP_BP_R) or HDTV (YP_BP_R) signal.
DTU·GBR: Inputs the DTV (GBR) or HDTV (GBR) signal.
VIDEO: Inputs the composite video signal.
S-VIDEO: Inputs the S video signal.

Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT B section, or when the output mode is selected on the IFB-12A.

The SERVICE MODE Menus

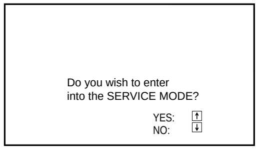
Follow the steps below for entering into the SERVICE MODE. The SERVICE MODE is available even when only one of the four lamps for light source functions. Accordingly, you can enter into the mode even if the projector is in standby mode.
Confirm that the menu is not displayed on the screen.

Note

Be sure to set STATUS in the SET SETTING menu to ON. If it is set to OFF, you cannot enter into the SERVICE MODE.

Operation when the projector is on

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ⬆ key, ⬇ key, ENTER key
The following screen appears.

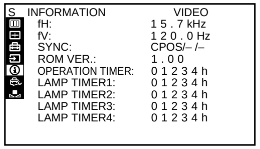


```
Do you wish to enter
into the SERVICE MODE?

                 YES:  ⬆
                 NO:   ⬇
```

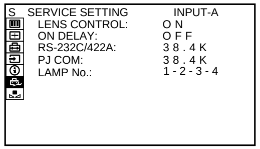
2 Press the ⬆ key.
The projector enters into the SERVICE MODE.

3 Press the MENU key.
The SERVICE MODE select menu appears. When the projector enters into the SERVICE MODE, “S” appears on the upper-left corner of the screen.



```
S  INFORMATION                  VIDEO
     fH:                  1 5 . 7 kHz
     fV:                  1 2 0 . 0 Hz
     SYNC:                CPOS/– /–
     ROM VER.:            1 . 0 0
     OPERATION TIMER:     0 1 2 3 4 h
     LAMP TIMER1:         0 1 2 3 4 h
     LAMP TIMER2:         0 1 2 3 4 h
     LAMP TIMER3:         0 1 2 3 4 h
     LAMP TIMER4:         0 1 2 3 4 h
```

4 Press the ⬆ or ⬇ key to select the menu, then press the ➡ key or the ENTER key.
The selected menu appears.

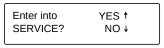


```
S  SERVICE SETTING            INPUT-A
     LENS CONTROL:        O N
     ON DELAY:            O F F
     RS-232C/422A:        3 8 . 4 K
     PJ COM:              3 8 . 4 K
     LAMP No.:            1 - 2 - 3 - 4
```

5 Make setting or adjustment on the item.
For details on setting individual items, see pages 38 to 40.

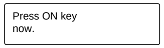
Operation when the projector is in standby mode

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ⬆ key, ⬇ key, ENTER key
The following message appears in the display window of the control panel.



```
Enter into        YES ⬆
SERVICE?           NO ⬇
```

2 Press the ⬆ key.



```
Press ON key
now.
```

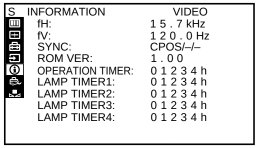
3 Press the ON key within 5 seconds.
The projector enters into the SERVICE MODE.

4 Follow the steps 3 to 5 on the left.

There are three menus in the SERVICE MODE: INFORMATION, SERVICE SETTING, and W/B ADJUST menus.

The INFORMATION Menu

The INFORMATION menu shows the information about the current input signal and the number of operated hours of the projector and lamp.



```
S   INFORMATION              VIDEO
      fH:                    1 5 . 7 kHz
      fV:                    1 2 0 . 0 Hz
      SYNC:                  CPOS/–/–
      ROM VER:               1 . 0 0
      OPERATION TIMER:       0 1 2 3 4 h
      LAMP TIMER1:           0 1 2 3 4 h
      LAMP TIMER2:           0 1 2 3 4 h
      LAMP TIMER3:           0 1 2 3 4 h
      LAMP TIMER4:           0 1 2 3 4 h
```

fH (Horizontal frequency)

Indicates the horizontal frequency of the input signal. The value is not absolute but is only used as a reference.

fV (Vertical frequency)

Indicates the vertical frequency of the input signal. The value is not absolute but is only used as a reference.

SYNC

Indicates the type and the polarity of the sync signal. The indications show the polarity of the composite or horizontal sync signal, vertical sync signal and sync on G signal from the left to the right.

CPOS: The polarity of the composite sync signal is positive.
CNEG: The polarity of the composite sync signal is negative.
POS: The polarity of the sync signal is positive.
NEG: The polarity of the sync signal is negative.
SonG: Sync on green signal
– : No sync signal is input.

ROM VER.

Indicates the ROM version number of the projector.

OPERATION TIMER

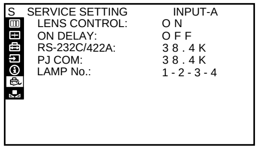
Indicates the total number of hours for which the projector has been operated.

LAMP TIMER 1– 4

Indicates the total number of hours for which the lamp currently used has been operated.
The number of hours of the lamp that has burnt out is indicated in red.

The SERVICE SETTING Menu

The SERVICE SETTING menu is for the settings to be adjusted before operation.



```
S   SERVICE SETTING          INPUT-A
      LENS CONTROL:          O N
      ON DELAY:              O F F
      RS-232C/422A:          3 8 . 4 K
      PJ COM:                3 8 . 4 K
      LAMP No.:              1 - 2 - 3 - 4
```

Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or the ENTER key.

2. Change the setting
Press the ↑ or ↓ key to change the setting.

3. Restore the original screen
Press the ← or the ENTER key.
The original screen is restored.

LENS CONTROL

When set to OFF, the SHIFT, FOCUS and ZOOM keys on the Remote Commander and the control panel do not function. To activate the keys, set to ON.

ON DELAY

When connecting multiple projectors, set to ON to turn on the projectors sequentially one by one. The delay time depends on the device index number on each projector.

RS-232C/422A

Displays the data transmission rate 38.4 K of the RS-232C/422A connector.

Note
Set all the computers to the same data transmission rate.

PJ COM

Sets the data transmission rate of the PJ COM connector.

Note
Set the data transmission rate of all equipment connected via the PJ COM connector to the same rate.

LAMP No.

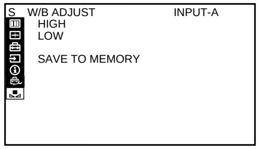
Sets the lamp lighting mode.
- **1 - 2 - 3 - 4:** for lighting the four lamps
- **1 - 4/2 - 3:** for lighting the pair (1 - 4 or 2 - 3) lamps with longer lamp life. When the lamp of the used pair is worn out, another pair of lamps are used automatically.
- **1 - 4:** for lighting lamps 1 and 4
- **2 - 3:** for lighting lamps 2 and 3

Note
To make effective the mode setting, after setting the lamp lighting mode, enter the standby mode and turn on the power again.

http://getMANUAL.com

The W/B ADJUST Menu

The W/B ADJUST menu sets the values of the COLOR TEMP in the PICTURE CTRL menu.

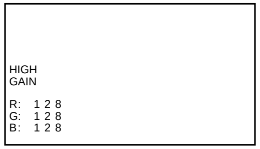


S W/B ADJUST INPUT-A
HIGH
LOW

SAVE TO MEMORY

Operation

1. Select the COLOR TEMP item to be set
Use the ↑ or ↓ key to select HIGH or LOW, then press the → or ENTER key.
The projector enters into GAIN/BIAS adjustment mode.



HIGH
GAIN

R: 1 2 8
G: 1 2 8
B: 1 2 8

2. Select the item to be adjusted
Use the ↓ key to select the item.
Each time the ↓ key is pressed, the selected color item appears in the following order.

R (GAIN) → G (GAIN) → B (GAIN)
↑ ↓
B (BIAS) ← G (BIAS) ← R (BIAS)

3. Adjust an item
To increase the number, press the → key.
To decrease the number, press the ← key.

4. Restore the original screen
Press the ENTER key.
The original screen is restored.

To cancel the adjusted values

Turn off the projector. The saved data in the memory will be retrieved when the projector is turned on again.

HIGH

Changes the color temperature of the COLOR TEMP's HIGH setting value in the PICTURE CONTROL menu.

LOW

Changes the color temperature of the COLOR TEMP's LOW setting value in the PICTURE CONTROL menu.

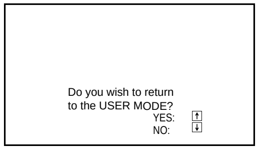
SAVE TO MEMORY

Saves the settings of HIGH and LOW levels of COLOR TEMP if you select SAVE TO MEMORY with the ↑ or ↓ key and press the ENTER key.

Restoring the USER MODE

Normally, once you turn off the power using the STANDBY key on the Remote Commander after making adjustments, the USER MODE is automatically restored when you turn on the power again.
To restore the USER MODE before turning off the power, follow the steps below.

1 Press the keys on the control panel in the following order:
ENTER key, ENTER key, ↑ key, ↓ key, ENTER key
The following screen appears.



Do you wish to return
to the USER MODE?
YES: ↑
NO: ↓

2 Press the ↑ key.
The projector goes back into the USER MODE.
You cannot display the SERVICE MODE menus.

Maintenance

Replacing the Lamp

When the lamp has burnt out, the LAMP FAIL indicators at the rear of the projector light. In this case, replace the lamp with a new LMP-Q130 projector lamp (not supplied).

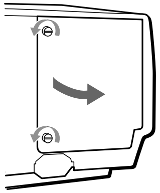
Note

Immediately after turning off the power, the lamp is extremely hot. Wait at least one hour before changing the lamp to give it enough time to cool down.

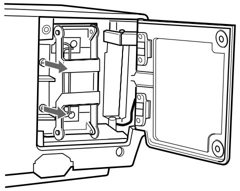
To remove the lamp unit

1 Press the STANDBY key to set the projector to standby mode, and unplug the power cord.

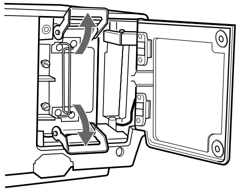
2 Remove the two screws with a coin or similar object, or a screwdriver, to open the lamp cover.



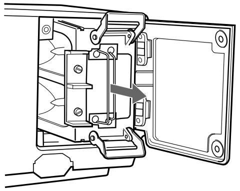
3 Loosen the two screws that fasten the lamp.



4 Fold out the levers up and down.

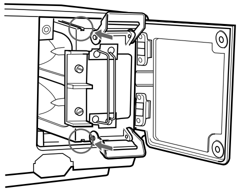


5 Pull out the lamp by holding the handles.

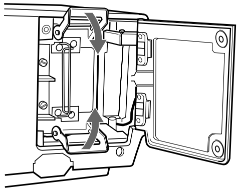


To install a new lamp

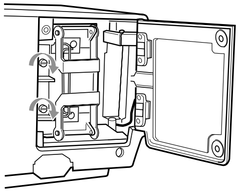
1 Mount the lamp with the grooves on the top and bottom aligned with the guides on the projector.



2 Push the lamp completely until it clicks.
Fold down the levers to fix the lamp to the projector.

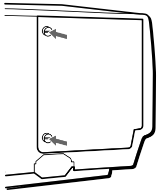


3 Tighten the two screws to secure the lamp.



(continued)

4 Replace the lamp cover and push to tighten the two screws to fix the cover.



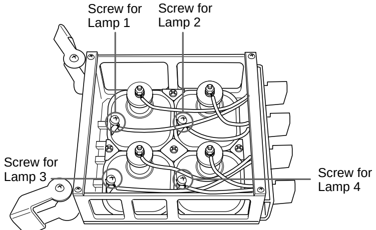
To replace a burnt lamp

If a lamp has burnt out, the FAIL LAMP indicator of that lamp lights. Check the number of the burnt lamp, and replace it with a new projector lamp (not supplied). Be sure to use the LMP-S120 projector lamp.

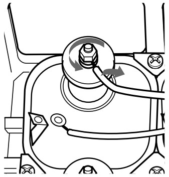
Notes

- When replacing two or more lamps, replace the lamps one after another paying attention to the connections.
- When replacing a lamp, be careful not to overtighten the screws.

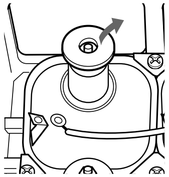
1 Remove the screw for the lamp to be replaced.
Example: To replace Lamp 1



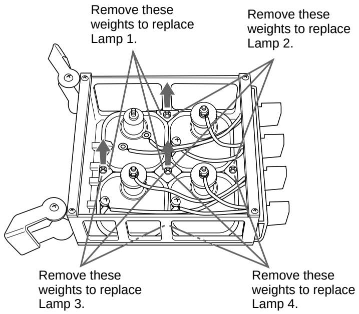
2 Remove the hexagonal nut to disconnect the cable.



3 Remove the lamp heat sink.

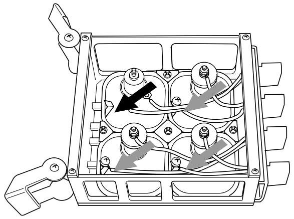


4 Remove the lamp weights.
The positions of the weights to be removed vary depending on Lamp 1–4.


Remove these weights to replace Lamp 1.
Remove these weights to replace Lamp 2.
Remove these weights to replace Lamp 3.
Remove these weights to replace Lamp 4.

5 Remove the lamp, and install a new lamp.

6 Secure the lamp by performing the steps above in reverse order.
Tighten the screw for the lamp while pressing the lamp in the direction of the arrows. For replacement of the lamp 2, 3 or 4, perform in the same way.



To reset the number of operated hours of the lamps in the message display window

1 Plug in the power cord and set the projector to standby mode.

2 Press the LIGHT, ←, → and ENTER keys on the control panel in sequence. Press each key within 5 seconds.

```
TIMER RESET?
LAMP: 1
```

3 Press the ↑, ↓, ← or → key to display 1, 2, 3, 4 or ALL.
To reset the number of operated hours for Lamp 1, 2, 3 or 4, respectively, display 1, 2, 3 or 4.
To reset the number of operated hours for all the lamps at the same time, display ALL.

```
TIMER RESET?
LAMP: ALL
```

4 Press the ENTER key.

```
TIMER RESET??
LAMP: ALL
```

5 Press the ENTER key again.
The display returns to that in step 3.

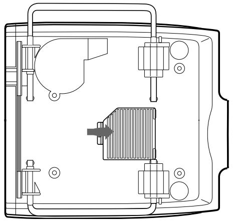
6 To exit the reset mode, display EXIT and press the ENTER key.
If you want to reset the number of operated hours of other lamps, repeat steps 3 to 5.

Cleaning the Air Filter

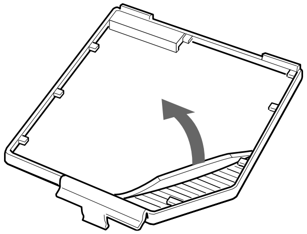
The air filter should be cleaned in every 100 hours. When it becomes difficult to remove the dust from the filter, replace the filter with a new one.

1 Turn off the power of the projector and unplug the power cord.

2 Remove the air filter cover on the bottom of the projector.



3 Remove the air filter.



4 Remove the dust from the filter with a vacuum cleaner.

5 Attach the air filter and replace the cover.

Notes

- If the air filter is excessively dirty, wash it with mild detergent solution and dry it in a shaded place.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the ON key at a short interval.	Wait for about one minute before turning on the power *(see page 7).*
	The lamp cover is detached.	Attach the lamp cover securely.
	The air filter cover is detached.	Attach the air filter cover securely *(see page 43).*
No picture and no sound.	Cable is disconnected.	Check that the proper connections have been made *(see pages 18 – 26).*
	Input selection is not correct.	Select the input source correctly in the SIGNAL SELECT menu *(see page 36).*
No picture or no sound.	Either the picture or the sound is cut off.	Press the MUTING key to cancel the muting function *(see page 7).*
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
The picture from INPUT A/B connector is colored strange.	Setting for INPUT-A or INPUT-B in the SIGNAL SELECT menu is incorrect.	Set INPUT-A or INPUT-B in the SIGNAL SELECT menu correctly according to the input signal *(see page 36).*
“Please check INPUT-A in SIGNAL SELECT” appears in spite of inputting the correct signal from INPUT A.	Setting for INPUT-A in the SIGNAL SELECT menu is incorrect.	Set INPUT-A in the SIGNAL SELECT menu correctly according to the input signal *(see page 36).*
“Please check INPUT-B in SIGNAL SELECT” appears in spite of inputting the correct signal from INPUT B.	Setting for INPUT-B in the SIGNAL SELECT menu is incorrect.	Set INPUT-B in the SIGNAL SELECT menu correctly according to the input signal *(see page 36).*
“NO INPUT” appears when 15k RGB or component signal is input.	The sync signal is incorrect.	Input the correct sync singal (composite sync or sync on G singal (sync on Y for component singal)).
On-screen displays do not appear.	STATUS in the SET SETTING menu is set to OFF.	Set STATUS in the SET SETTING menu to ON *(see page 35).*
Color balance is not correct.	Picture has not been adjusted properly.	Adjust the picture *(see page 31).*
	The color system of the input signal is not set correctly.	Set COLOR SYS in the PICTURE CTRL menu correctly to match the color system of the input signal *(see page 31).*
The picture is too dark.	The lamp is nearing the end of its life.	Replace the lamp with a new one *(see page 41).*
	Contrast or brightness has not been adjusted properly.	Adjust CONTRAST or BRIGHT in the PICTURE CTRL menu properly *(see page 31).*
The picture is not clear.	The picture is out of focus.	Adjust the focus *(see page 29).*
	Moisture condensation has occurred on the lens.	Leave the projector for about two hours with the power on *(see page 14).*
The image from INPUT C is fixed.	Some trouble has occurred to the Windows CE.	Press the FUNCTION key and then RESET key on the Remote Commander within 5 seconds to reset the Windows CE.
The mouse or keyboard does not function.	The mouse or keyboard is connected after the power of the projector is turned on.	Connect the mouse or keyboard before the power of the projector is turned on. You can use the mouse or keyboard when the INPUT C/RS-232C/RS-422A select switch is set to INPUT C and the INPUT C signal is selected.
The image from INPUT C does not appear. “NO INPUT” is displayed.	The INPUT C/RS-232C/RS-422A select switch is not set correctly.	Set the INPUT C/RS-232C/RS-422A select switch to INPUT C.
The PJ COM connectors do not function.	The INPUT C/RS-232C/RS-422A select switch is set to INPUT C.	Set the INPUT C/RS-232C/RS-422A select switch to RS-232C or RS-422A.
The Remote Commander does not work.	The batteries are exhausted.	Replace the batteries with new ones *(see page 13).*
	The remote control cable is connected to the Remote Commander although you are using it as a wireless Remote Commander.	Disconnect the remote control cable.
	The fluorescent lamp influences on the Remote Commander detector.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 35).*
	You have selected a wrong index number.	Select the correct index number *(see pages 27 and 28).*
	You have set the index number to “00”.	Select the correct index number *(see pages 27 and 28).*
The wireless Remote Commander does not function.	The SIRCS RECEIVER setting is not correct.	Change the setting of SIRCS RECEIVER in the SET SETTING menu *(see page 35).*
INPUT A cannot be selected.	The switcher is not connected, but is recognized to be connected.	If the PJ COM connector is connected to something other than the terminator, remove it then press the SYS SET key, or the LIGHT and RESET keys on the control panel.
The COVER FAIL indicator lights.	The lamp cover or air filter cover is detached.	Attach the lamp cover or air filter cover securely *(see pages 41 – 43).*
The LAMP FAIL indicator lights.	The lamp with the same number of the indicator has reached the end of its life.	Replace the lamp *(see page 42).*
The FAN indicator lights.	The fan is broken.	Consult with qualified Sony personnel.
The HIGH TEMP indicator lights.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes.
		Clean the air filter.
When you press the ZOOM, SHIFT or FOCUS key, “LENS CONTROL is locked! Do you wish to unlock ?” appears.	The lens control function is locked.	Consult with qualified Sony service personnel.

Troubleshooting

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High Temperature! Power off in 1 min.	Internal temperature becomes too high.	Turn off the power. (If not, the power is automatically turned off about one minute later.) Check to see if nothing is blocking the ventilation holes.
		Clean the air filter.
Frequency is out of range!	The frequency of the input signal is out of the acceptable range.	Input a signal that is within the range of the frequency.
Please check INPUT-A in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-A in the SIGNAL SELECT menu is set to COMPONENT, DTV-GBR or DTV-YP$_B$P$_R$.	Set INPUT-A correctly.
Please check INPUT-B in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-B in the SIGNAL SELECT menu is set to COMPONENT, VIDEO, S-VIDEO, DTV-GBR or DTV-YP$_B$P$_R$.	Set INPUT-B correctly.
Backup Battery Very Low	The backup battery is worn out.	Consult with qualified Sony service personnel.

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, 3-primary color optical shutter system
LCD panel	1.8-inch SXGA LCD panel, 3,932,160 pixels (1,310,720 pixels × 3)
Lens	Option
Light output	ANSI lumen[1] 4,000 lm
Lamp	120 W UHP × 4

Electrical characteristics

Color system	NTSC$_{3.58}$/PAL/SECAM/NTSC$_{4.43}$/PAL-M system, switched automatically
Resolution	600 horizontal TV lines (video input) 1280 × 1024 dots (RGB input)
Acceptable computer signal	fH: 15 to 100 kHz fV: 40 to 120 Hz
Speakers	Max. 5 W, 90 × 50 mm (3 5/8 × 2 inches), monaural

Network

OS	Windows CE 2.12

Input/Output

CONTROL S	IN/PLUG IN POWER: Stereo minijack, 5 Vp-p, plug in power, DC 5 V, maximum output 60 mA OUT: Stereo minijack, 5 Vp-p
REMOTE RS-232C/422A	D-sub 9-pin (female) *(For details, see "Pin assignment" on page 50.)*
PJ COM	IN: D-sub 9-pin (male) OUT: D-sub 9-pin (female) *(For details, see "Pin assignment" on page 50.)*
TRIG	Minijack Power on: DC 12 V, output impedance: 4.7 kilohms Power off: 0 V
S VIDEO (priority to Y IN/C IN)	IN: Mini DIN 4-pin type (male) Y (luminance): 1 Vp-p ± 2 dB sync negative, 75 ohms terminated C (chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated OUT: Loop-through mini DIN 4-pin type (male) Loop-through output from the S VIDEO IN connector Y IN: BNC type 1 Vp-p ± 2 dB sync negative, 75 ohms terminated C IN: BNC type Burst 0.286 Vp-p ± 2 dB (NTSC), 75 ohms terminated Burst 0.3 Vp-p ± 2 dB (PAL), 75 ohms terminated
VIDEO	IN: BNC type Composite video, 1 Vp-p ± 2 dB sync negative, 75 ohms terminated OUT: Loop-through BNC type Loop-through output from the VIDEO IN connector
AUDIO IN	Phono type (stereo) 500 mVrms, impedance more than 47 kilohms
INPUT A	Analog RGB/component: BNC type R/R-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated G: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated G with sync/Y: 1 Vp-p ± 2 dB sync negative, 75 ohms terminated B/B-Y: 0.7 Vp-p ± 2 dB positive, 75 ohms terminated SYNC/HD: Composite sync: 0.6–8 Vp-p, high impedance, sync positive/negative Horizontal sync: 0.6–8 Vp-p, high impedance, sync positive/negative

(continued)

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[1] ANSI lumen is a measuring method of American National Standard IT 7.228.

Specifications

	VD: Vertical sync: 0.6–8 Vp-p, high impedance, sync positive/negative AUDIO IN: Phono type (stereo) 500 m Vrms, impedance more than 47 kilohms HDTV/DTV (YPBPR): BNC type Y: 1 Vp-p ± 2dB positive, 75 ohms terminated Tri-level sync: ± 0.3 Vp-p Bi-level sync: 0.3 Vp-p PB/PR: 0.35 Vp-p ± 2dB positive, 75 ohms terminated HDTV/DTV (GBR): BNC type G with sync: 1 Vp-p ± 2 dB, 75 ohms terminated Tri-level sync: ± 0.3 Vp-p Bi-level sync: 0.3 Vp-p B/R: 0.7 Vp-p ± 2dB positive, 75 ohms terminated *(For HDTV/DTV signals see "Acceptable HDTV/DTV formats" on page 50.)*
Input C	PC card slot Type II
AUDIO OUT (variable out)	Phono type, Max. 1 Vrms When input is 500 mVrms: impedance less than 5 kilohms
MOUSE	Mini DIN 6-pin (female) *(For details, see "Pin assignment" on page 50.)*
KEYBOARD	Mini DIN 6-pin (female) *(For details, see "Pin assignment" on page 50.)*
Safety regulations	VPL-FE110U: UL1950, c-UL 1950, FCC Class A, IC Class A VPL-FE110M: EN60 950 (NEMKO), CE, C-Tick

General

Dimensions	562 × 237 × 649 mm (22 1/4 × 9 3/8 × 25 5/8 inches) (w/h/d)
Mass	Approx. 34.5 kg (76 lb 1 oz) (excluding the optional lens)
Power requirements	VPL-FE110U: AC 100 to 120 V/ 220 to 240 V, 50/60 Hz[1] VPL-FE110M: AC 220 to 240 V, 50/60 Hz
Power consumption	Approx. 830 W Standby mode: 6.8W for VPL-FE100U, 12 W for VPL-FE110M (with the INPUT C/RS-232C/RS-422A set to INPUT C: 13.3 W for VPL-FE110U, 21 W for VPL-FE110M)
Heat dissipation	2833 BTU
Operating temperature	0°C to 40°C (32°F to 104°F)
Operating humidity	35% to 85% (no condensation)
Storage temperature	–20°C to +60°C (–4°F to +140°F)
Storage humidity	10% to 90%
Supplied Accessories	Remote Commander RM-PJ1001 (1) Size AA (R6) batteries (3) Remote commander cable (stereo) (15 m) (1) AC power cord (1) Terminator for the PJ COM connector (1) Lens ring (1) Noise prevention core (1) Operating Instructions (1) Operating Instructions for Networking (1) Installation Manual for Dealers (1) Protection Distance Chart (1) Recommended PC card/wireless LAN access point (1) Warranty Booklet (1)

This projector is designed for business use.

Design and specifications are subject to change without notice.

Optional accessories

- Projector Lamp LMP-Q130 (for replacement)
- Projector Lamp LMP-S120 (for replacement)
- Interface Board
  - IFB-12A (Analog RGB/component/HDTV/composite video/S video input with 5BNC type connectors)
  - IFB-21 (Analog RGB input/output with HD D-sub 15-pin type connector)
  - IFB-50 (serial digital video input/output with BNC type connector)
  - IFB-1000 (Composite video input with BNC type connector/S video input with mini DIN 4-pin type connector)
- Signal Interface Switcher PC-3000
- Interface Unit IFU-1271/1271M
- SIC Cable SIC-10
- 9-pin remote cable (for PJ COM)
  - RCC-5G/10G/30G
- Monitor Cable
  - SMF-400 (HD D-sub 15-pin (male) ↔ 5BNC (female))
  - SMF-410 (HD D-sub 15-pin (male) ↔ HD D-sub 15-pin (female))
- Signal Adapter
  - ADP-20 (Macintosh ↔ VGA)
- Remote Commander RM-PJ3000S
- Remote Commander RM-PJM610
- Remote Control Receiver RM-PJ10
- Projection Lens
  - Fixed short focus lens VPLL-2009
  - Fixed short focus lens VPLL-2014
  - 1.3-times zoom standard focus lens VPLL-Z3020
  - 1.6-times zoom long focus lens VPLL-Z2025
  - 1.5-times zoom long focus lens VPLL-Z2039
  - Fixed long focus lens VPLL-3050
  - Fixed long focus lens VPLL-2075
  - 1.3-times zoom standard focus lens VPLL-Z2019
- Projector Stand SU-PJ2000 (for stacking)
- Projector Suspension Support PSS-2000
- Screens
  - VPS-100FH (100-inch, flat)
  - VPS-120FH (120-inch, flat)

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

(continued)

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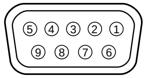
1) UL listed for 120 V operation.

Pin assignment

RS-232C/422A connector (D-sub 9-pin, female)



RS-232C

1	NC		6	DSR*	Data Set Ready
2	RD	Receive Data	7	RTS**	Request to Send
3	TD	Transmit Data	8	CTS**	Clear to Send
4	DTR*	Data Terminal Ready	9	NC	
5	GND	Ground			

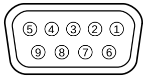
* Circuit between pins 4 and 6 is short-circuited in the projector.

** Circuit between pins 7 and 8 is short-circuited in the projector.

RS-422A

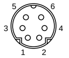
1	GND	Ground	6	GND	Ground
2	$\overline{\text{TX}}$	Transmit	7	TX	Transmit
3	RX	Receive	8	$\overline{\text{RX}}$	Receive
4	GND	Ground	9	GND	Ground
5	NC				

PJ COM connector (D-sub 9-pin, female)



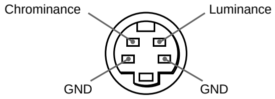
1	GND	Ground	6	GND	Ground
2	$\overline{\text{BUSY}}$	Busy	7	BUSY	Busy
3	TX/RX	Tramsmit/ Receive	8	$\overline{\text{TX/RX}}$	Tramsmit/ Receive
4	GND	Ground	9	GND	Ground
5	NC				

KEYBOARD/MOUSE connectors (mini DIN 6-pin)



1	DATA
2	NC
3	GND
4	+5V
5	CLOCK
6	NC

S VIDEO connector (mini DIN 4-pin)



Acceptable HDTV/DTV formats

Format	Scanning rate (kHz)	Frame rate (Hz)*	Scanning format	Aspect ratio	Standard
1035/60i	33.75	30	2:1 interlace	16:9	BTA S-001B
1080/60i	33.75	30	2:1 interlace	16:9	SMPTE 274M/ BTA S-001B
480/60P	31.5	60	Progressive	16:9/4:3	SMPTE 293M
575/50P	31.25	50	Progressive	16:9/4:3	–
1080/24PsF	27	24	2:1 interlace	16:9	–
1080/50i	28.13	25	2:1 interlace	16:9	SMPTE 274M
720/60P	45	60	Progressive	16:9	SMPTE 293M
720/50P	37.5	60	Progressive	16:9	–

* Each of the frame rates is also compatible with 1/1.001.

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LCD Data Projector

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CC

VPL-FE110J
VPL-FE110U
VPL-FE110M

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このプロジェクターで使えるレンズ

VPLL-2009	**短焦点固定レンズ**
VPLL-2014	**短焦点固定レンズ**
VPLL-Z3020	**1.3倍ズーム標準レンズ**
VPLL-Z2025	**1.6倍ズーム長焦点レンズ**
VPLL-Z2039	**1.5倍ズーム長焦点レンズ**
VPLL-3050	**長焦点固定レンズ**
VPLL-2075	**長焦点固定レンズ**
VPLL-Z2019	**1.3倍ズーム標準レンズ**

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Lens Types Used with the Projector

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VPLL-2014	Fixed short focus lens
VPLL-Z3020	1.3-times zoom standard focus lens
VPLL-Z2025	1.6-times zoom long focus lens
VPLL-Z2039	1.5-times zoom long focus lens
VPLL-3050	fixed long focus lens
VPLL-2075	fixed long focus lens
VPLL-Z2019	1.3-times zoom standard focus lens

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Types d’objectifs utilisés avec le projecteur

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VPLL-Z3020	Zoom 1,3 à focale standard
VPLL-Z2025	Zoom 1,6 à focale longue
VPLL-Z2039	Zoom 1,5 à focale longue
VPLL-3050	Objectif à focale longue fixe
VPLL-2075	Objectif à focale longue fixe
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Tipos de objetivos utilizados con el proyector

VPLL-2009	Objetivo fijo de enfoque de corta distancia
VPLL-2014	Objetivo fijo de enfoque de corta distancia
VPLL-Z3020	Objetivo de enfoque estándar con zoom de 1,3 veces
VPLL-Z2025	Objetivo de enfoque de larga distancia con zoom de 1,6 veces
VPLL-Z2039	Objetivo de enfoque de larga distancia con zoom de 1,5 veces
VPLL-3050	Objetivo fijo de enfoque de larga distancia
VPLL-2075	Objetivo fijo de enfoque de larga distancia
VPLL-Z2019	Objetivo de enfoque estándar con zoom de 1,3 veces

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Für diesen Projektor geeignete Objektivtypen

VPLL-2009	Objektiv mit festgelegter kurzer Brennweite
VPLL-2014	Objektiv mit festgelegter kurzer Brennweite
VPLL-Z3020	1,3fach-Zoom-Objektiv mit Standard-Brennweite
VPLL-Z2025	1,6fach-Zoom-Objektiv mit langer Brennweite
VPLL-Z2039	1,5fach-Zoom-Objektiv mit langer Brennweite
VPLL-3050	Objektiv mit festgelegter langer Brennweite
VPLL-2075	Objektiv mit festgelegter langer Brennweite
VPLL-Z2019	1,3fach-Zoom-Objektiv mit Standard-Brennweite

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Tipi di obiettivi utilizzati con il proiettore

VPLL-2009	Obiettivo con distanza focale breve fisso
VPLL-2014	Obiettivo con distanza focale breve fisso
VPLL-Z3020	Obiettivo con distanza focale standard e zoom da 1,3
VPLL-Z2025	Obiettivo con distanza focale lunga e zoom da 1,6
VPLL-Z2039	Obiettivo con distanza focale lunga e zoom da 1,5
VPLL-3050	Obiettivo con distanza focale lunga fisso
VPLL-2075	Obiettivo con distanza focale lunga fisso
VPLL-Z2019	Obiettivo con distanza focale standard e zoom da 1,3

映像の表示方法について

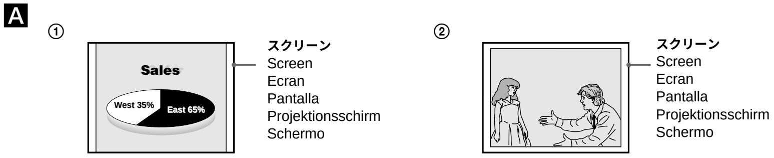
How to Display the Picture

Comment afficher l’image

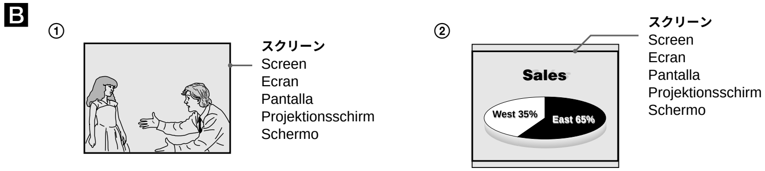
Cómo mostrar la imagen

Anzeigen eines Bildes

Visualizzazione dell’immagine



▨ は表示される映像を示します。/ ▨ indicates the displayed picture. / ▨ indique l’image affichée.



▨ indica la imagen mostrada. / ▨ gibt das angezeigte Bild an. / ▨ indica l’immagine visualizzata.

日本語

映像のスクリーンへの表示のしかたにより設置寸法が異なります。
表示のしかたには「5:4表示」と「4:3表示」の2通りがあります。

「5:4」表示とは A

アスペクト比5:4のSXGA信号を映像が欠けることなく、4:3のスクリーンにそのまま表示する方法です。映像の縦方向はスクリーンいっぱいに表示されます（A-①参照）。
また、アスペクト比4:3の信号はスクリーンより小さく表示されます（A-②参照）。

「4:3」表示とは B

アスペクト比4:3のビデオやコンピュータの信号を4:3のスクリーンいっぱいに表示する方法です（B-①参照）。
また、アスペクト比5:4のSXGA信号は映像の上下がスクリーンからはみ出します（B-②参照）。この場合、「信号設定メニュー」の「スキャンコンバーター」を「オン」に設定することにより、スクリーンから映像をはみ出させることなく表示できます。

◆ **詳しくは、取扱説明書または特約店様用設置説明書の「信号設定メニュー」をご覧ください。**

English

Installation measurements vary depending on how you want to display the picture on the screen.
There are two ways how to display: “5:4 display mode” and “4:3 display mode.”

5:4 display mode A

“5:4 display mode” displays an SXGA signal with a 5:4 aspect ratio so that the whole picture will be displayed on the screen with 4:3 aspect ratio. The vertical direction of the picture fits the screen height (see A-①).
A signal with 4:3 aspect ratio will be displayed smaller than the 4:3 screen (see A-②).

4:3 display mode B

“4:3 display mode” displays a video or computer signal with a 4:3 aspect ratio to fill the screen with 4:3 aspect ratio (see B-①).
An SXGA signal with a 5:4 aspect ratio will be off screen at the top and bottom (see B-②). In this case, if you set “SCAN CONV” in the INPUT SETTING menu to “ON,” the picture will fit the screen.
For details, see “The INPUT SETTING menu” of the Operating Instructions or the Installation Manual for Dealers.

Français

Les mesures d’installation varient suivant la façon dont vous voulez afficher l'image à l'écran.
Il existe deux modes d’affichage : “Mode d’affichage 5:4” et “Mode d’affichage 4:3”.

Mode d’affichage 5:4 A

Le mode “Mode d’affichage 5:4” affiche un signal SXGA d’un rapport hauteur/largeur de 5:4 de façon à ce que l’image complète soit affichée sur un écran de format 4:3. L’image s’adapte verticalement à la hauteur de l’écran (voir A-①).
Un signal d’un rapport hauteur/largeur de 4:3 est affiché dans un format plus petit que l’écran 4:3 (voir A-②).

Mode d’affichage 4:3 B

Le mode “Mode d’affichage 4:3” affiche un signal vidéo ou informatique dans un rapport hauteur/largeur de 4:3 de façon à ce que l’image complète soit affichée sur un écran de format 4:3 (voir B-①).
Un signal SXGA d’un rapport hauteur/largeur de 5:4 dépasse de l’écran dans le haut et dans le bas (voir B-②). Dans ce cas, si vous réglez “CONV FREQ” dans le menu REGL ENTREE sur “ON”, l’image s’adapter à l’écran.
Pour plus de détails, reportez-vous à la section “Le menu REGL ENTREE” du mode d’emploi ou du manuel d’installation destiné aux revendeurs.

Español

Las medidas de instalación varían en función de cómo desee mostrar la imagen en la pantalla.
Existen dos formatos de visualización: “formato 5:4” y “formato 4:3”.

Formato 5:4 A

El “formato 5:4” permite mostrar señales SXGA con relación de aspecto 5:4 con el fin de que la imagen completa aparezca en pantalla con relación de aspecto 4:3. El sentido vertical de la imagen se adapta a la altura de la pantalla (consulte A-①).
La señal con relación de aspecto 4:3 aparecerá con menor tamaño que la pantalla 4:3 (consulte A-②).

Formato 4:3 B

El “formato 4:3” permite mostrar una señal de vídeo o de ordenador con relación de aspecto 4:3 llenando la pantalla con dicha relación (consulte B-①).
Una señal SXGA con relación de aspecto 5:4 aparecerá fuera de la pantalla en las partes superior e inferior (consulte B-②). En este caso, si ajusta “CONV EXPLO” en “SI” en el menú AJUS ENTRAD, la imagen encajará en la pantalla.
Para obtener información detallada, consulte “El menú AJUS ENTRAD” del manual de instrucciones o del manual de instalación para proveedores.

Deutsch

Die Abmessungen für die Installation hängen davon ab, wie Sie das Bild auf dem Projektionsschirm anzeigen lassen wollen.
Es gibt zwei Anzeigemöglichkeiten: “5:4-Anzeige modus” und “4:3-Anzeige modus”.

5:4-Anzeige modus A

Beim “5:4-Anzeige modus” wird ein SXGA-Signal mit einem Bildseitenverhältnis von 5:4 so ausgegeben, daß das ganze Bild auf einem 4:3-Projektionsschirm angezeigt wird. Hierbei füllt das Bild die Höhe des Projektionsschirms vollständig aus (siehe A-①).
Bei einem Signal mit einem Bildseitenverhältnis von 4:3 ist das angezeigte Bild kleiner als der 4:3-Projektionsschirm (siehe A-②).

4:3-Anzeige modus B

Beim “4:3-Anzeige modus” wird ein Video- oder Computersignal mit einem Bildseitenverhältnis von 4:3 so angezeigt, daß das Bild einen 4:3-Projektionsschirm ausfüllt (siehe B-①).
Bei einem SXGA-Signal mit einem Bildseitenverhältnis von 5:4 werden der obere und untere Rand des Bildes abgeschnitten (siehe B-②). In diesem Fall können Sie “SCAN-KONV” im Menü EING.-EINST auf “EIN” setzen. Das Bild paßt dann vollständig auf den Projektionsschirm.
Einzelheiten dazu finden Sie unter “Das Menü EING.-EINST” in der Bedienungsanleitung oder in der Installationsanleitung für Händler.

Italiano

Le misure di installazione variano a seconda di come si desidera visualizzare l'immagine sullo schermo.
È possibile visualizzare l’immagine in due modi: visualizzazione 5:4 e visualizzazione 4:3.

Modo visualizzazione 5:4 A

Modo visualizzazione 5:4 display per visualizzare un segnale SXGA con un rapporto di formato di 5:4 in modo che l’intera immagine venga visualizzata sullo schermo con rapporto di formato di 4:3. La direzione verticale dell’immagine si adatta all’altezza dello schermo (vedere A-①).
Il segnale con rapporto di formato di 4:3 verrà visualizzato più piccolo dello schermo con rapporto di formato di 4:3 (vedere A-②).

Modo visualizzazione 4:3 B

Modo visualizzazione 4:3 per visualizzare un segnale video o del computer con un rapporto di formato di 4:3 per riempire lo schermo con rapporto di formato di 4:3 (vedere B-①).
Un segnale SXGA con rapporto di formato di 5:4 non viene visualizzato nella parte superiore e nella parte inferiore dello schermo (vedere B-②). In questo caso, se si imposta “CONV SCAN” nel menu REGOL INGR. su “INSER”, l’immagine si adatterà allo schermo.
Per ulteriori informazioni, fare riferimento alla sezione “Il menu REGOL INGR.” delle istruzioni per l’uso o al manuale di installazione per rivenditori.

http://getMANUAL.com

設置の前に

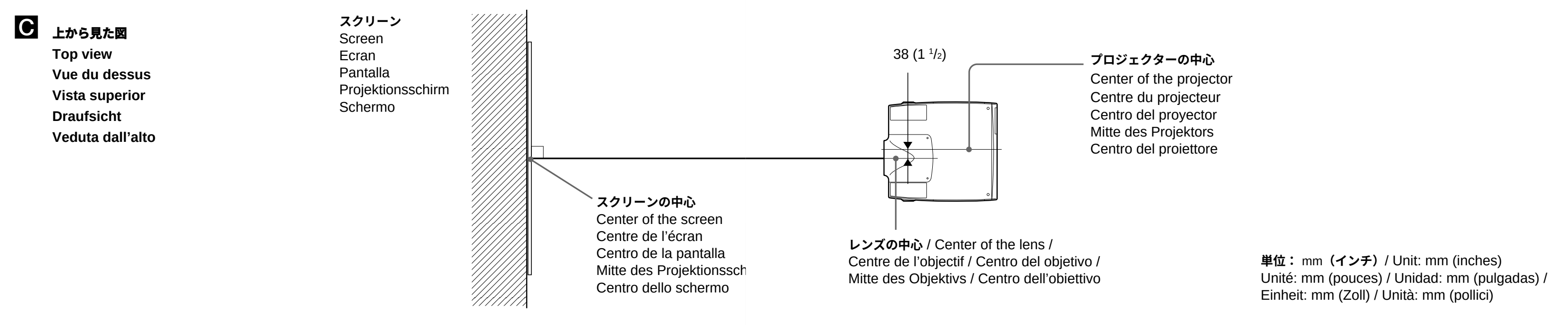
Before installation

Avant l’installation

Antes de la instalación

Vor dem Installieren

Prima dell’installazione


C
上から見た図
Top view
Vue du dessus
Vista superior
Draufsicht
Veduta dall’alto
スクリーン
Screen
Ecran
Pantalla
Projektionsschirm
Schermo
38 (1 1/2)
プロジェクターの中心
Center of the projector
Centre du projecteur
Centro del proyector
Mitte des Projektors
Centro del proiettore
スクリーンの中心
Center of the screen
Centre de l’écran
Centro de la pantalla
Mitte des Projektionssch
Centro dello schermo
レンズの中心 / Center of the lens /
Centre de l’objectif / Centro del objetivo /
Mitte des Objektivs / Centro dell’obiettivo
単位： mm（インチ）/ Unit: mm (inches)
Unité: mm (pouces) / Unidad: mm (pulgadas) /
Einheit: mm (Zoll) / Unità: mm (pollici)

日本語

左右の位置関係の確認 C

プロジェクターを設置するときは、スクリーンの中心とレンズの中心が合うように設置してください。

PSS-2000を使って天井つりで設置するには

PSS-2000の取扱説明書をご覧ください。

SU-PJ2000を使ってツイン/トリプルスタックをするには

SU-PJ2000の取付説明書をご覧ください。

設置条件に合わせて極性を変更するには

工場出荷時のまま、天井つりで使用すると、電源を入れたときに文字が上下逆さに、左右が逆さに、または上下左右逆さに現れます。その場合は、初期設定メニューの「設置状態」で文字が正しく映し出されるように設定を変えてください。

English

Checking the horizontal position of the picture C

Install the projector so that the center of the lens is aligned with the horizontal center of the screen.

Ceiling installation using the PSS-2000

Refer to the Operating Instructions supplied with the PSS-2000 projector suspension support.

Installation for twin/triple stacking

Refer to the Operating Instructions supplied with the SU-PJ2000 projector stand.

Changing the polarity according to the installation condition

The polarity of the projector is adjusted at the factory to use the projector for front projection on the floor.
When the projector is installed on the ceiling, it is necessary to change the setting of INSTALLATION in the SET SETTING menu to project the picture properly.

Français

Contrôlez la position horizontale de l’image C

Installez le projecteur de façon à ce que le centre de l’objectif soit aligné sur le centre horizontal de l’écran.

Installation au plafond à l’aide du PSS-2000

Reportez-vous au mode d’emploi fourni avec le support de suspension pour projecteur PSS-2000.

Installation en double/triple superposition

Reportez-vous au mode d’emploi fourni avec le support pour projecteur SU-PJ2000.

Changement de la polarité suivant les conditions d’installation

La polarité du projecteur est réglée en usine en vue d’une utilisation du projecteur pour la projection frontale depuis le sol.
Si le projecteur est installé au plafond, il est indispensable de changer le réglage de l’option INSTALLATION dans le menu REGLAGE pour pouvoir projeter l’image correctement.

Español

Comprobación de la posición horizontal de la imagen C

Instale el proyector de forma que el centro del objetivo quede alineado con el centro horizontal de la pantalla.

Instalación en el techo con el PSS-2000

Consulte el manual de instrucciones suministrado con el soporte de suspensión para proyector PSS-2000.

Instalación de apilamiento doble/triple

Consulte el manual de instrucciones suministrado con el soporte para proyector SU-PJ2000.

Cambio de la polaridad en función de la condición de instalación

La polaridad del proyector se ajusta en fábrica para utilizarlo instalado en el suelo, para proyecciones frontales.
Si el proyector se instala en el techo, será necesario cambiar el ajuste de INSTALACION en el menú AJUSTE para proyectar la imagen adecuadamente.

Deutsch

Einstellen der horizontalen/vertikalen Bildposition C

Stellen Sie den Projektor so auf, daß sein Objektiv an der Mittellinie (horizontal) des Projektionsschirms ausgerichtet ist.

Installation an der Decke mit Hilfe der PSS-2000

Näheres dazu finden Sie in der Installationsanleitung zur Projektoraufhängung PSS-2000.

Installation für eine Doppel-/Dreifachprojektion

Näheres dazu finden Sie in der Installationsanleitung zum Projektorständer SU-PJ2000.

Einstellen der Polarität auf die Installationssituation

Werkseitig ist die Polarität des Projektors für die Frontprojektion und die Installation auf dem Boden eingestellt.
Wird der Projektor an der Decke installiert, muß die Einstellung von INSTALLATION im Menü EINSTELLUNG entsprechend geändert werden, damit das Bild richtig projiziert wird.

Italiano

Controllo della posizione orizzontale dell’immagine C

Installare il proiettore in modo che il centro dell’obiettivo sia allineato con il centro orizzontale dello schermo.

Installazione al soffitto utilizzando il supporto PSS-2000

Consultare le istruzioni per l’uso in dotazione con il supporto di sospensione del proiettore PSS-2000.

Installazione per l’impilazione doppia o tripla

Consultare le istruzioni per l’uso in dotazione con il supporto del proiettore SU-PJ2000.

Modifica della polarità in base alle condizioni di installazione

La polarità del proiettore è regolata in fabbrica per la proiezione frontale usando il proiettore sul pavimento.
Quando il proiettore viene installato sul soffitto, occorre modificare l’impostazione di INSTALLAZIONE nel menu REGOLAZ per una proiezione adeguata dell’immagine.

設置例（床置き）

Installation Examples (Floor Installation)

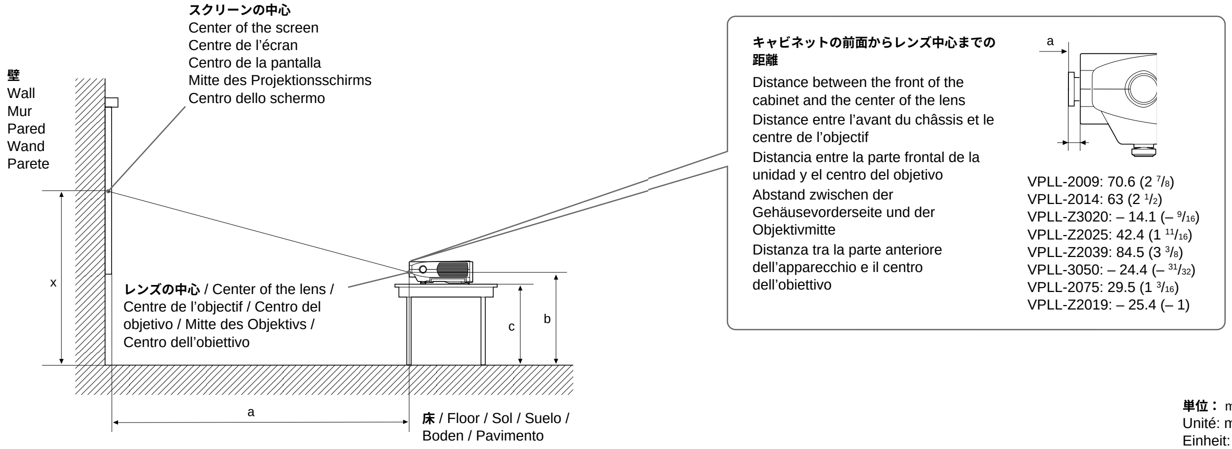
Exemples d’installation (Installation au sol)

Ejemplos de instalación (instalación en el suelo)

Installationsbeispiele (Installation am Boden)

Esempi di installazione (Installazione al pavimento)

D


スクリーンの中心
Center of the screen
Centre de l’écran
Centro de la pantalla
Mitte des Projektionsschirms
Centro dello schermo
壁
Wall
Mur
Pared
Wand
Parete
x
レンズの中心 / Center of the lens / Centre de l’objectif / Centro del objetivo / Mitte des Objektivs / Centro dell’obiettivo
c
b
a
床 / Floor / Sol / Suelo / Boden / Pavimento
a

キャビネットの前面からレンズ中心までの距離

Distance between the front of the cabinet and the center of the lens

Distance entre l’avant du châssis et le centre de l’objectif

Distancia entre la parte frontal de la unidad y el centro del objetivo

Abstand zwischen der Gehäusevorderseite und der Objektivmitte

Distanza tra la parte anteriore dell’apparecchio e il centro dell’obiettivo

VPLL-2009: 70.6 (2 $^{7}/_{8}$)
VPLL-2014: 63 (2 $^{1}/_{2}$)
VPLL-Z3020: – 14.1 (– $^{9}/_{16}$)
VPLL-Z2025: 42.4 (1 $^{11}/_{16}$)
VPLL-Z2039: 84.5 (3 $^{3}/_{8}$)
VPLL-3050: – 24.4 (– $^{31}/_{32}$)
VPLL-2075: 29.5 (1 $^{3}/_{16}$)
VPLL-Z2019: – 25.4 (– 1)

単位： mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

日本語

プロジェクターを机などの上に置いて設置する場合の設置例を示します。D

「5：4表示」の設置寸法については、10～13ページ、「4：3表示」の設置寸法については、14～17ページの表をご覧ください。

イラスト中のアルファベットは、以下の距離を示します。
a：レンズの中心からスクリーンまでの距離
b：床からレンズの中心までの距離
c：床からプロジェクターの脚までの距離
x：任意

English

This section describes the examples for installing the projector on the desk, etc. **D**

See the charts on pages 10 to 13 concerning the installation measurements for “5:4 display mode,” and on pages 14 to 17 for “4:3 display mode.”

The alphabetical letters in the illustration indicate the distances below.
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free

Français

Cette section décrit des exemples d'installation du projecteur sur un bureau, etc. **D**

Reportez-vous aux tableaux des pages 10 à 13 sur les mesures d’installation pour un “mode d’affichage 5:4” et des pages 14 à 17 pour un “mode d’affichage 4:3”.

Les caractères alphabétiques dans l'illustration indiquent les distances ci-dessous.
a : distance entre l’écran et le centre de l’objectif
b : distance entre le sol et le centre de l’objectif
c : distance entre le sol et la base des pieds réglables du projecteur
x : libre

Español

En esta sección se muestran ejemplos para instalar el proyector sobre una mesa, etc. **D**

Consulte las tablas de las páginas 10 a 13 en relación con las medidas de instalación para el “formato 5:4”, y las páginas 14 a 17 para el “formato 4:3”.

Las letras alfabéticas de la ilustración indican las distancias mostradas a continuación.
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el suelo y el centro del objetivo
c : distancia entre el suelo y la base de los ajustadores del proyector
x : libre

Deutsch

In diesem Abschnitt finden Sie Beispiele für das Installieren des Projektors auf einem Tisch usw. **D**

In den Tabellen auf Seite 10 bis 13 finden Sie die Installationsabmessungen den “5:4-Anzeigemodus” und auf Seite 14 bis 17 die Abmessungen den “4:3-Anzeigemodus”.

Die Buchstaben in der Abbildung beziehen sich auf die unten beschriebenen Abstände.
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
x : frei

Italiano

Questa sezione descrive gli esempi di installazione del proiettore su un tavolo, ecc. **D**

Vedere i diagrammi da pagina 10 a pagina 13 relativi alle misure di installazione per “il modo visualizzazione 5:4” e da pagina 14 a pagina 17 per “il modo visualizzazione 4:3”.

Le lettere nell'illustrazione indicano le distanze descritte di seguito.
a : distanza fra lo schermo e il centro dell’obiettivo
b : distanza tra il pavimento e il centro dell’obiettivo
c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
x : libero

設置例（床置き）

Installation Examples (Floor Installation)

Exemples d’installation (Installation au sol)

5:4

■ VPLL-2009

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		42	80	100	120	150	180	200	250	300	350	400	450	500
a		650 (25 5/8)	1430 (56 3/8)	1730 (68 1/8)	2100 (82 3/4)	2660 (104 3/4)	3220 (126 7/8)	3590 (141 3/8)	4530 (178 3/8)	5460 (215)	6390 (251 5/8)	7320 (288 1/4)	8250 (324 7/8)	9180 (361 1/2)
b	N	x-13 (x-17/32)	x-27 (x-1 1/16)	x-32 (x-1 5/16)	x-38 (x-1 9/16)	x-48 (x-1 15/16)	x-57 (x-2 3/8)	x-64 (x-2 5/8)	x-80 (x-3 1/4)	x-96 (x-3 7/8)	x-112 (x-4 1/2)	x-128 (x-5 1/8)	x-143 (x-5 3/4)	x-159 (x-6 3/8)
	E	x												
	M	x+11 (x+7/16)	x+22 (x+29/32)	x+27 (x+1 1/16)	x+32 (x+1 5/16)	x+40 (x+1 5/8)	x+48 (x+1 15/16)	x+53 (x+2 1/8)	x+66 (x+2 5/8)	x+80 (x+3 1/4)	x+93 (x+3 3/4)	x+106 (x+4 1/4)	x+120 (x+4 3/4)	x+133 (x+5 1/4)
c	N	x-156 (x-6 1/4)	x-169 (x-6 3/4)	x-174 (x-6 7/8)	x-181 (x-7 1/8)	x-190 (x-7 1/2)	x-200 (x-7 7/8)	x-206 (x-8 1/8)	x-222 (x-8 3/4)	x-238 (x-9 1/2)	x-254 (x-10 1/8)	x-270 (x-10 3/4)	x-286 (x-11 3/8)	x-302 (x-12)
	E	x-142 (x- 5 5/8)												
	M	x-76 (x-3)	x-65 (x-2 5/8)	x-60 (x-2 1/2)	x-55 (x-2 1/4)	x-47 (x-1 7/8)	x-39 (x-1 9/16)	x-34 (x-1 3/8)	x-21 (x- 13/16)	-x+7 (x+0)	x+6 (x+ 1/4)	x+19 (x+ 25/32)	x+33 (x+1 5/16)	x+46 (x+1 13/16)

$a = (SS \times 33.676/1.807) - 134$

$b\ (N) = x - (SS/1.807 \times 0.96 \times 0.6)$

$b\ (M) = x + (SS/1.807 \times 0.96 \times 0.5)$

$c\ (N) = x - (SS/1.807 \times 0.96 \times 0.6 + 142.6)$

$c\ (M) = x - (SS/1.807 \times 0.96 \times (-0.5) + 141.5)$

■ VPLL-2014

SS		42	80	100	120	150	180	200	250	300	350	400	450	500
a		1040 (41)	2210 (87 1/8)	2650 (104 3/8)	3210 (126 1/2)	4040 (159 1/8)	4870 (191 7/8)	5430 (213 7/8)	6820 (268 5/8)	8200 (322 7/8)	9590 (377 5/8)	10980 (432 3/8)	12370 (487 1/8)	13750 (541 1/2)
b	N	x-199 (x-7 7/8)	x-397 (x-15 3/4)	x-473 (x-18 5/8)	x-567 (x-22 3/8)	x-709 (x-28)	x-851 (x-33 5/8)	x-946 (x-37 1/4)	x-1182 (x-46 5/8)	x-1419 (x-55 7/8)	x-1655 (x-65 1/4)	x-1891 (x-74 1/2)	x-2128 (x-83 7/8)	x-2364 (x-93 1/8)
	M	x												
c	N	x-349 (x-13 7/8)	x-548 (x-21 5/8)	x-624 (x-24 5/8)	x-718 (x-28 3/8)	x-860 (x-33 7/8)	x-1002 (x-39 1/2)	x-1097 (x-43 1/4)	x-1333 (x- 52 1/2)	x-1569 (x-61 7/8)	x-1806 (x-71 1/8)	x-2042 (x-80 7/16)	x-2279 (x-89 3/4)	x-2515 (x- 99 1/8)
	M	x-142 (x-5 5/8)												

$a = (SS \times 50.154/1.807) - 123$

$b\ (N) = x - (SS/1.807 \times 0.96 \times 8.9)$

$c\ (N) = x - (SS/1.807 \times 0.96 \times 8.9 + 150.9)$

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS : スクリーンサイズ対角（インチ）
a　: レンズの中心からスクリーンまでの距離
b　: 床からレンズの中心までの距離
c　: 床からプロジェクターの脚までの距離
x　: 任意
N : 最小値
E　: 中心
M : 最大値

VPLL-2009をご使用の場合はレンズの中心とスクリーンの中心の高さが同じになるように設置してください。

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free
N : minimum
E : center
M : maximum

When using the VPLL-2009, make sure that the center of the lens is aligned with the vertical center of the screen.

Français

Les mesures d’installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l’illustration indiquent ce qui suit.
SS : dimension de l’écran en diagonale (pouces)
a : distance entre l’écran et le centre de l’objectif
b : distance entre le sol et le centre de l’objectif
c : distance entre le sol et la base des pieds réglables du projecteur
x : libre
N : minimum
E : centre
M : maximum

Lorsque vous employez le VPLL-2009, assurez-vous que l’axe de l’objectif est aligné sur l’axe vertical de l’écran.

Ejemplos de instalación (instalación en el suelo)

Installationsbeispiele (Installation am Boden)

Esempi di installazione (Installazione al pavimento)

5:4

■ VPLL-Z3020

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		42	80	100	120	150	180	200	250	300	350	400	450	500
a	N	1570 (61 7/8)	3090 (121 3/4)	3900 (153 5/8)	4700 (185 1/8)	5910 (232 3/4)	7120 (280 3/8)	7920 (311 7/8)	9930 (391)	11940 (470 1/4)	13950 (549 3/8)	15960 (628 1/2)	17970 (707 5/8)	19980 (786 3/4)
	M	2000 (78 3/4)	3920 (154 3/8)	4920 (193 3/4)	5930 (233 1/2)	7440 (293)	8960 (352 7/8)	9960 (392 1/4)	12480 (491 1/2)	15000 (590 5/8)	17520 (689 7/8)	20040 (789 1/8)	22560 (888 3/8)	25080 (987 5/8)
b	N	x-286 (x-11 1/4)	x-544 (x-21 1/2)	x-680 (x-26 7/8)	x-816 (x-32 1/4)	x-1020 (x-40 1/4)	x-1224 (x-48 1/4)	x-1360 (x-53 5/8)	x-1700 (x-67)	x-2040 (x-80 3/8)	x-2380 (x-93 3/4)	x-2720 (x-107 1/8)	x-3060 (x-120 1/2)	x-3400 (x-134)
	M	x												
c	N	x-440 (x-17 3/8)	x-699 (x-27 5/8)	x-835 (x-32 7/8)	x-971 (x-38 1/4)	x-1175 (x-46 3/8)	x-1379 (x-54 3/8)	x-1515 (x-59 3/4)	x-1855 (x-73 1/8)	x-2195 (x-86 1/2)	x-2535 (x-99 7/8)	x-2875 (x-113 1/4)	x-3215 (x-126 5/8)	x-3555 (x-140)
	M	x-142 (x-5 5/8)												

$a\ (N) = ((SS \times 70.884/1.807) - 120) \times 1.025$

$a\ (M) = ((SS \times 93.409/1.807) - 120) \times 0.975$

$b\ (N) = x - (SS/1.807 \times 0.96 \times 12.8)$

$c\ (N) = x - (SS/1.807 \times 0.96 \times 12.8 + 154.8)$

■ VPLL-Z2025

SS		84	100	120	150	180	200	250	300	350	400	450	500
a	N	4030 (158 11/16)	4830 (190 1/4)	5840 (230)	7340 (289 1/8)	8850 (348 1/2)	9850 (387 7/8)	12360 (486 3/4)	14860 (585 1/8)	17370 (684)	19880 (782 7/8)	22380 (881 1/4)	24890 (980 1/8)
	M	6240 (245 3/4)	7460 (293 3/4)	8990 (354)	11280 (444 1/4)	13570 (534 3/8)	15090 (594 1/4)	18910 (744 5/8)	22720 (894 5/8)	26540 (1045 1/8)	30350 (1195 1/8)	34170 (1345 1/2)	37990 (1495 7/8)
b	N	x-571 (x-22 1/2)	x-680 (x-26 7/8)	x-816 (x-32 1/4)	x-1020 (x-40 1/4)	x-1224 (x-48 1/4)	x-1360 (x-53 5/8)	x-1700 (x-67)	x-2040 (x-80 3/8)	x-2380 (x-93 3/4)	x-2720 (x-107 1/8)	x-3060 (x-120 1/2)	x-3400 (x-134)
	M	x											
c	N	x-726 (x-28 5/8)	x-835 (x-32 7/8)	x-971 (x-38 1/4)	x-1175 (x-46 3/8)	x-1379 (x-54 3/8)	x-1515 (x-59 3/4)	x-1855 (x-73 1/8)	x-2195 (x-86 1/2)	x-2535 (x-99 7/8)	x-2875 (x-113 1/4)	x-3215 (x-126 5/8)	x-3555 (x-140)
	M	x-142 (x-5 5/8)											

$a\ (N) = ((SS \times 88.395/1.807) - 176) \times 1.025$

$a\ (M) = ((SS \times 141.432/1.807) - 175) \times 0.975$

$b\ (N) = x - (SS/1.807 \times 0.96 \times 12.8)$

$c\ (N) = x - (SS/1.807 \times 0.96 \times 12.8 + 154.8)$

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el suelo y el centro del objetivo
c : distancia entre el suelo y la base de los ajustadores del proyector
x : libre
N : mínimo
E : centro
M : máximo

Si utiliza la unidad VPLL-2009, compruebe que el centro del objetivo quede alineado con el centro vertical de la pantalla.

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
x : frei
N : Mindestens
E : Mitte
M : Höchstenss

Wenn Sie das VPLL-2009 benutzen, achten Sie darauf, daß die Objektivmitte an der vertikalen Mitte des Projektionsschirms ausgerichtet ist.

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza fra lo schermo e il centro dell’obiettivo
b : distanza tra il pavimento e il centro dell’obiettivo
c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
x : libero
N : Minima
E : Centro
M : Massima

Quando si utilizza il proiettore VPLL-2009, accertarsi che il centro dell’obiettivo sia allineato con il centro verticale dello schermo.

設置例（床置き）

Installation Examples (Floor Installation)

Exemples d’installation (Installation au sol)

5:4

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z2039

SS		84	100	120	150	180	200	250	300	350	400	450	500
a	N	6440 (253 5/8)	7690 (302 7/8)	9270 (365 1/8)	11630 (458)	13980 (550 1/2)	15560 (612 3/4)	19490 (767 1/2)	23420 (922 1/4)	27350 (1077)	31280 (1231 3/4)	35210 (1386 1/2)	39140 (1541 1/4)
	M	9260 (364 5/8)	11060 (435 1/2)	13300 (523 3/4)	16670 (656 1/2)	20030 (788 11/16)	22280 (877 3/8)	27880 (1097 7/8)	33490 (1318 3/4)	39100 (1539 5/8)	44710 (1760 1/2)	50320 (1981 3/8)	55930 (2202 1/4)
b	N	x-571 (x-22 1/2)	x-680 (x-26 7/8)	x-816 (x-32 1/4)	x-1020 (x-40 1/4)	x-1224 (x-48 1/4)	x-1360 (x-53 5/8)	x-1700 (x-67)	x-2040 (x-80 3/8)	x-2380 (x-93 3/4)	x-2720 (x-107 1/8)	x-3060 (x-120 1/2)	x-3400 (x-134)
	M	x											
c	N	x-726 (x-28 5/8)	x-835 (x-32 7/8)	x-971 (x-38 1/4)	x-1175 (x-46 3/8)	x-1379 (x-54 3/8)	x-1515 (x-59 3/4)	x-1855 (x-73 1/8)	x-2195 (x-86 1/2)	x-2535 (x-99 7/8)	x-2875 (x-113 1/4)	x-3215 (x-126 5/8)	x-3555 (x-140)
	M	x-142 (x-5 5/8)											

$a\ (N) = ((SS \times 138.593/1.807) - 163) \times 1.025$

$a\ (M)= ((SS \times 207.887/1.807) - 163 \times 0.975$

$b\ (N) = x - (SS/1.807 \times 0.96 \times 12.8)$

$c\ (N) = x - (SS/1.807 \times 0.96 \times 12.8 + 154.8)$

■ VPLL-3050

SS		84	100	120	150	180	200	250	300	350	400	450	500
a		8070 (317 7/8)	9600 (378)	11520 (453 5/8)	14390 (566 5/8)	17260 (679 5/8)	19180 (755 1/4)	23960 (943 1/2)	28750 (1132 1/8)	33540 (1320 3/4)	38320 (1508 7/8)	43110 (1697 1/2)	47900 (1886 1/8)
b	N	x-571 (x- 22 1/2)	x-680 (x-26 7/8)	x-816 (x-32 1/4)	x-1020 (x-40 1/4)	x-1224 (x-48 1/4)	x-1360 (x-53 5/8)	x-1700 (x-67)	x-2040 (x-80 3/8)	x-2380 (x-93 3/4)	x-2720 (x-107 1/8)	x-3060 (x-120 1/2)	x-3400 (x-134)
	M	x											
c	N	x-726 (x-28 5/8)	x-835 (x-32 7/8)	x-971 (x-38 1/4)	x-1175 (x-46 3/8)	x-1379 (x-54 3/8)	x-1515 (x-59 3/4)	x-1855 (x-73 1/8)	x-2195 (x-86 1/2)	x-2535 (x-99 7/8)	x-2875 (x-113 1/4)	x-3215 (x-126 5/8)	x-3555 (x-140)
	M	x-142 (x-5 5/8)											

$a\ = (SS \times 172.988/1.807) + 29$

$b\ (N) = x - (SS/1.807 \times 0.96 \times 12.8)$

$c\ (N) = x - (SS/1.807 \times 0.96 \times 12.8 + 154.8)$

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。

SS：スクリーンサイズ対角（インチ）
a　：レンズの中心からスクリーンまでの距離
b　：床からレンズの中心までの距離
c　：床からプロジェクターの脚までの距離
x　：任意
N：最小値
M：最大値

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.

SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free
N : minimum
M : maximum

Français

Les mesures d’installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans les tableaux et l’illustration indiquent ce qui suit.

SS : dimension de l’écran en diagonale (pouces)
a : distance entre l’écran et le centre de l’objectif
b : distance entre le sol et le centre de l’objectif
c : distance entre le sol et la base des pieds réglables du projecteur
x : libre
N : minimum
M : maximum

Ejemplos de instalación (instalación en el suelo)

Installationsbeispiele (Installation am Boden)

Esempi di installazione (Installazione al pavimento)

5:4

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-2075

SS		84	100	120	150	180	200	250	300	350	400	450	500
a		12170 (479 1/4)	14460 (569 3/8)	17320 (682)	21610 (851)	25900 (1019 7/8)	28760 (1132 1/2)	35910 (1414)	43050 (1695 1/8)	50200 (1976 5/8)	57350 (2258 1/4)	64500 (2539 3/4)	71650 (2821 1/4)
b	N	x-571 (x-22 1/2)	x-680 (x-26 7/8)	x-816 (x-32 1/4)	x-1020 (x-40 1/4)	x-1224 (x-48 1/4)	x-1360 (x-53 5/8)	x-1700 (x-67)	x-2040 (x-80 3/8)	x-2380 (x-93 3/4)	x-2720 (x-107 1/8)	x-3060 (x-120 1/2)	x-3400 (x-134)
	M	x											
c	N	x-726 (x-28 5/8)	x-835 (x-32 7/8)	x-971 (x-38 1/4)	x-1175 (x-46 3/8)	x-1379 (x-54 3/8)	x-1515 (x-59 3/4)	x-1855 (x-73 1/8)	x-2195 (x-86 1/2)	x-2535 (x-99 7/8)	x-2875 (x-113 1/4)	x-3215 (x-126 5/8)	x-3555 (x-140)
	M	x-142 (x-5 5/8)											

$a\ = (SS \times 258.336/1.807) + 163$

$b\ (N) = x - (SS/1.807 \times 0.96 \times 12.8)$

$c\ (N) = x - (SS/1.807 \times 0.96 \times 12.8 + 154.8)$

■ VPLL-Z2019

SS		42	80	100	120	150	180	200	250	300	350	400	450	500
a	N	1500 (59 1/8)	2960 (116 5/8)	3730 (146 7/8)	4490 (176 7/8)	5640 (222 1/8)	6790 (267 3/8)	7560 (297 3/4)	9480 (373 3/8)	11390 (448 1/2)	13310 (524 1/8)	15230 (599 3/4)	17140 (675)	19060 (750 1/2)
	M	1910 (75 1/4)	3740 (147 3/8)	4700 (185 1/8)	5660 (222 7/8)	7100 (279 5/8)	8540 (336 3/8)	9500 (374 1/8)	11900 (468 5/8)	14300 (563 1/8)	16700 (657 5/8)	19090 (751 3/4)	21490 (846 1/4)	23890 (940 3/4)
b	N	x-286 (x-11 1/4)	x-544 (x-21 1/2)	x-680 (x-26 7/8)	x-816 (x-32 1/4)	x-1020 (x-40 1/4)	x-1224 (x-48 1/4)	x-1360 (x-53 5/8)	x-1700 (x-67)	x-2040 (x-80 3/8)	x-2380 (x-93 3/4)	x-2720 (x-107 1/8)	x-3060 (x-120 1/2)	x-3400 (x-134)
	M	x												
c	N	x-440 (x-17 3/8)	x-699 (x-27 5/8)	x-835 (x-32 7/8)	x-971 (x-38 1/4)	x-1175 (x-46 3/8)	x-1379 (x-54 3/8)	x-1515 (x-59 3/4)	x-1855 (x-73 1/8)	x-2195 (x-86 1/2)	x-2535 (x-99 7/8)	x-2875 (x-113 1/4)	x-3215 (x-126 5/8)	x-3555 (x-140)
	M	x-142 (x-5 5/8)												

$a\ (N) = ((SS \times 67.568/1.807) - 102) \times 1.025$

$a\ (M) = ((SS \times 88.938/1.807) - 104) \times 0.975$

$b\ (N) = x - (SS/1.807 \times 0.96 \times 12.8)$

$c\ (N) = x - (SS/1.807 \times 0.96 \times 12.8 + 154.8)$

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.

SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el suelo y el centro del objetivo
c : distancia entre el suelo y la base de los ajustadores del proyector
x : libre
N : mínimo
M : máximo

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:

SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
x : frei
N : Mindestens
M : Höchstenss

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.

SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza fra lo schermo e il centro dell’obiettivo
b : distanza tra il pavimento e il centro dell’obiettivo
c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
x : libero
N : Minima
M : Massima

設置例（床置き）

Installation Examples (Floor Installation)

Exemples d'installation (Installation au sol)

4:3

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-2009

SS		40	80	100	120	150	180	200	250	300	350	400	450	500
a		660 (26)	1460 (57 1/2)	1860 (73 1/4)	2250 (88 5/8)	2850 (112 1/4)	3450 (135 7/8)	3840 (151 1/4)	4840 (190 5/8)	5830 (229 5/8)	6830 (269)	7820 (308)	8820 (347 3/8)	9810 (386 3/8)
b	N	x-34 (x- 1 3/8)	x-68 (x- 2 3/4)	x-85 (x- 3 3/8)	x-102 (x- 4 1/8)	x-128 (x-5 1/8)	x-153 (x-6 1/8)	x-170 (x-6 3/4)	x-213 (x-8 3/8)	x-255 (x-10 1/8)	x-298 (x-11 3/4)	x-340 (x-13 1/2)	x-383 (x-15 1/8)	x-425 (x-16 3/4)
	E	x												
	M	x+11 (x+15/32)	x+23 (x+29/32)	x+28 (x+1 1/8)	x+34 (x+1 3/8)	x+43 (x+1 11/16)	x+51 (x+2 1/8)	x+57 (x+2 1/4)	x+71 (x+2 7/8)	x+85 (x+3 3/8)	x+99 (x+4)	x+113 (x+4 1/2)	x+128 (x+5 1/8)	x+142 (x+5 5/8)
c	N	x-178 (x-7)	x-212 (x- 8 3/8)	x-229 (x-9)	x-246 (x- 9 3/4)	x-271 (x- 10 3/4)	x-297 (x- 11 3/4)	x-314 (x-12 3/8)	x-356 (x- 14 1/8)	x-399 (x-15 3/4)	x-441 (x- 17 3/8)	x-484 (x-19 1/8)	x-526 (x-20 3/4)	x-569 (x- 22 1/2)
	E	x-142 (x- 5 5/ 8)												
	M	x-76 (x-3)	x-64 (x- 2 5/8)	x-59 (x- 2 3/8)	–x+53 (x+0)	–x+44 (x+0)	–x+36 (x+0)	–x+30 (x+0)	–x+16 (x+0)	–x+2 (x+0)	x+12 (x+1/2)	x+26 (x+ 1 1/16)	x+41 (x+ 1 5/8)	x+55 (x+ 2 1/4)

$a = (SS \times 35.079/1.764) - 134$

$b\ (N) = x - (SS/1.764 \times 1.5)$

$b\ (M) = x + (SS/1.764 \times 0.5)$

$c\ (N) = x - (SS/1.764 \times 1.5 + 143.5)$

$c\ (M) = x - (SS/1.764 \times -0.5 + 141.5)$

■ VPLL-2014

SS		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1060 (41 3/4)	2250 (88 5/8)	2840 (111 7/8)	3430 (135 1/8)	4320 (170 1/8)	5210 (205 1/4)	5800 (228 3/8)	7280 (286 3/4)	8760 (345)	10240 (403 1/4)	11720 (461 1/2)	13210 (520 1/4)	14690 (578 1/2)
b	N	x-222 (x-8 3/4)	x-445 (x-17 1/2)	x-556 (x-21 7/8)	x-667 (x-26 1/4)	x-833 (x-32 7/8)	x-1000 (x-39 3/8)	x-1111 (x-43 3/4)	x-1389 (x-54 3/4)	x-1667 (x-65 3/4)	x-1945 (x-76 5/8)	x-2223 (x-87 5/8)	x-2500 (x-98 1/2)	x-2778 (x-109 1/2)
	M	x												
c	N	x-374 (x-14 3/4)	x-596 (x-23 1/2)	x-707 (x-27 7/8)	x-819 (x-32 1/4)	x-985 (x-38 7/8)	x-1152 (x-45 3/8)	x-1263 (x-49 3/4)	x-1541 (x-60 3/4)	x-1819 (x-71 5/8)	x-2096 (x-82 5/8)	x-2374 (x-93 1/2)	x-2652 (x-104 1/2)	x-2930 (x-115 3/8)
	M	x-142 (x-5 5/8)												

$a = (SS \times 52.244/1.764) - 123$

$b\ (N) = x - (SS/1.764 \times 9.8)$

$c\ (N) = x - (SS/1.764 \times 9.8 + 151.8)$

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS：スクリーンサイズ対角（インチ）
a ：レンズの中心からスクリーンまでの距離
b ：床からレンズの中心までの距離
c ：床からプロジェクターの脚までの距離
x ：任意
N ：最小値
E ：中心
M ：最大値

VPLL-2009をご使用の場合はレンズの中心とスクリーンの中心の高さが同じになるように設置してください。

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free
N : minimum
E : center
M : maximum

When using the VPLL-2009, make sure that the center of the lens is aligned with the vertical center of the screen.

Français

Les mesures d'installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l'illustration indiquent ce qui suit.
SS : dimension de l'écran en diagonale (pouces)
a : distance entre l'écran et le centre de l'objectif
b : distance entre le sol et le centre de l'objectif
c : distance entre le sol et la base des pieds réglables du projecteur
x : libre
N : minimum
E : centre
M : maximum

Lorsque vous employez le VPLL-2009, assurez-vous que l'axe de l'objectif est aligné sur l'axe vertical de l'écran.

Ejemplos de instalación (instalación en el suelo)

Installationsbeispiele (Installation am Boden)

Esempi di installazione (Installazione al pavimento)

4:3

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z3020

SS		40	80	100	120	150	180	200	250	300	350	400	450	500
a	N	1590 (62 5/8)	3310 (130 3/8)	4170 (164 1/4)	5030 (198 1/16)	6310 (248 1/2)	7600 (299 1/4)	8460 (333 1/8)	10600 (417 3/8)	12750 (502 1/8)	14900 (586 3/4)	17040 (671)	19190 (755 5/8)	21330 (839 7/8)
	M	2030 (79 15/16)	4190 (165)	5260 (207 1/8)	6340 (249 3/4)	7950 (313 1/8)	9560 (376 1/2)	10640 (419)	13330 (524 7/8)	16020 (630 13/16)	18710 (736 3/4)	21400 (842 5/8)	24090 (948 5/8)	26780 (1054 1/2)
b	N	x-295 (x-11 5/8)	x-590 (x-23 1/4)	x-737 (x-29 1/8)	x-884 (x-34 7/8)	x-1106 (x-43 5/8)	x-1327 (x-52 1/4)	x-1474 (x-58 1/8)	x-1843 (x-72 5/8)	x-2211 (x-87 1/8)	x-2580 (x-101 5/8)	x-2948 (x-116 1/8)	x-3317 (x-130 5/8)	x-3685 (x-145 1/8)
	M	x												
c	N	x-450 (x-17 3/4)	x-745 (x-29 3/8)	x-892 (x-35 1/8)	x-1039 (x-41)	x-1261 (x-49 3/4)	x-1482 (x-58 3/8)	x-1629 (x-64 1/4)	x-1998 (x-78 3/4)	x-2366 (x-93 1/4)	x-2735 (x-107 3/4)	x-3103 (x-122 1/4)	x-3472 (x-136 3/4)	x-3840 (x-151 1/4)
	M	x-142 (x-5 5/8)												

$a\ (N) = ((SS \times 73.837/1.764) - 120) \times 1.025$

$a\ (M) = ((SS \times 97.301/1.764) - 120) \times 0.975$

$b\ (N) = x - (SS/1.764 \times 13.0)$

$c\ (N) = x - (SS/1.764 \times 13.0 + 155.0)$

■ VPLL-Z2025

SS		80	100	120	150	180	200	250	300	350	400	450	500
a	N	4100 (161 1/2)	5170 (203 5/8)	6240 (245 3/4)	7850 (309 1/8)	9450 (372 1/8)	10520 (414 1/4)	13200 (519 3/4)	15870 (625)	18550 (730 1/2)	21220 (835 5/8)	23900 (941 1/8)	26580 (1046 5/8)
	M	6340 (249 3/4)	7970 (313 7/8)	9600 (378)	12040 (474 1/8)	14490 (570 5/8)	16120 (634 3/4)	20190 (795)	24260 (955 1/4)	28330 (1115 1/2)	32400 (1275 3/4)	36480 (1436 1/2)	40550 (1596 3/4)
b	N	x-590 (x-23 1/4)	x-737 (x-29 1/8)	x-884 (x-34 7/8)	x-1106 (x-43 5/8)	x-1327 (x-52 1/4)	x-1474 (x-58 1/8)	x-1843 (x-72 5/8)	x-2211 (x-87 1/8)	x-2580 (x-101 5/8)	x-2948 (x-116 1/8)	x-3317 (x-130 5/8)	x-3685 (x-145 1/8)
	M	x											
c	N	x-745 (x-29 3/8)	x-892 (x-35 1/8)	x-1039 (x-41)	x-1261 (x-49 3/4)	x-1482 (x-58 3/8)	x-1629 (x-64 1/4)	x-1998 (x-78 3/4)	x-2366 (x-93 1/4)	x-2735 (x-107 3/4)	x-3103 (x-122 1/4)	x-3472 (x-136 3/4)	x-3840 (x-151 1/4)
	M	x-142 (x-5 5/8)											

$a\ (N) = ((SS \times 92.078/1.764) - 176) \times 1.025$

$a\ (M) = ((SS \times 147.324/1.764) - 175) \times 0.975$

$b\ (N) = x - (SS/1.764 \times 13.0)$

$c\ (N) = x - (SS/1.764 \times 13.0 + 155.0)$

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el suelo y el centro del objetivo
c : distancia entre el suelo y la base de los ajustadores del proyector
x : libre
N : mínimo
E : centro
M : máximo

Si utiliza la unidad VPLL-2009, compruebe que el centro del objetivo quede alineado con el centro vertical de la pantalla.

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
x : frei
N : Mindestens
E : Mitte
M : Höchstenss

Wenn Sie das VPLL-2009 benutzen, achten Sie darauf, daß die Objektivmitte an der vertikalen Mitte des Projektionsschirms ausgerichtet ist.

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza fra lo schermo e il centro dell'obiettivo
b : distanza tra il pavimento e il centro dell'obiettivo
c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
x : libero
N : Minima
E : Centro
M : Massima

Quando si utilizza il proiettore VPLL-2009, accertarsi che il centro dell'obiettivo sia allineato con il centro verticale dello schermo.

設置例（床置き）

Installation Examples (Floor Installation)

Exemples d'installation (Installation au sol)

4:3

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z2039

SS		80	100	120	150	180	200	250	300	350	400	450	500
a	N	6540 (257 5/8)	8220 (323 3/4)	9900 (389 7/8)	12420 (489 1/8)	14930 (587 7/8)	16610 (654 1/8)	20810 (819 1/2)	25000 (984 3/8)	29200 (1149 3/4)	33390 (1314 3/4)	37590 (1480 1/8)	41780 (1645 1/8)
	M	9420 (371)	11810 (465 1/8)	14210 (559 5/8)	17800 (700 7/8)	21390 (842 1/4)	23780 (936 3/8)	29770 (1172 1/4)	35750 (1407 3/4)	41740 (1643 5/8)	47720 (1879)	53710 (2114 7/8)	59690 (2350 3/8)
b	N	x-590 (x-23 1/4)	x-737 (x-29 1/8)	x-884 (x-34 7/8)	x-1106 (x-43 5/8)	x-1327 (x-52 1/4)	x-1474 (x-58 1/8)	x-1843 (x-72 5/8)	x-2211 (x-87 1/8)	x-2580 (x-101 5/8)	x-2948 (x-116 1/8)	x-3317 (x-130 5/8)	x-3685 (x-145 1/8)
	M	x											
c	N	x-745 (x-29 3/8)	x-892 (x-35 1/8)	x-1039 (x-41)	x-1261 (x-49 3/4)	x-1482 (x-58 3/8)	x-1629 (x-64 1/4)	x-1998 (x-78 3/4)	x-2366 (x-93 1/4)	x-2735 (x-107 3/4)	x-3103 (x-122 1/4)	x-3472 (x-136 3/4)	x-3840 (x-151 1/4)
	M	x-142 (x-5 5/8)											

a (N) = ((SS × 144.368/1.764) – 163) × 1.025
a (M) = ((SS × 216.549/1.764) – 163) × 0.975
b (N) = x – (SS/1.764 × 13.0)
c (N) = x – (SS/1.764 × 13.0 + 155.0)

■ VPLL-3050

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		8200 (322 7/8)	10250 (403 5/8)	12290 (484)	15350 (604 1/2)	18420 (725 3/8)	20460 (805 5/8)	25570 (1006 7/8)	30680 (1208 1/8)	35790 (1409 1/4)	40900 (1610 1/2)	46000 (1811 1/4)	51110 (2012 1/2)
b	N	x-590 (x-23 1/4)	x-737 (x-29 1/8)	x-884 (x-34 7/8)	x-1106 (x-43 5/8)	x-1327 (x-52 1/4)	x-1474 (x-58 1/8)	x-1843 (x-72 5/8)	x-2211 (x-87 1/8)	x-2580 (x-101 5/8)	x-2948 (x-116 1/8)	x-3317 (x-130 5/8)	x-3685 (x-145 1/8)
	M	x											
c	N	x-745 (x-29 3/8)	x-892 (x-35 1/8)	x-1039 (x-41)	x-1261 (x-49 3/4)	x-1482 (x-58 3/8)	x-1629 (x-64 1/4)	x-1998 (x-78 3/4)	x-2366 (x-93 1/4)	x-2735 (x-107 3/4)	x-3103 (x-122 1/4)	x-3472 (x-136 3/4)	x-3840 (x-151 1/4)
	M	x-142 (x-5 5/8)											

a = (SS × 180.196/1.764) + 29
b (N) = x – (SS/1.764 × 13.0)
b (N) = x – (SS/1.764 × 13.0 + 155.0)

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS：スクリーンサイズ対角（インチ）
a ：レンズの中心からスクリーンまでの距離
b ：床からレンズの中心までの距離
c ：床からプロジェクターの脚までの距離
x ：任意
N：最小値
M：最大値

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free
N : minimum
M : maximum

Français

Les mesures d'installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l'illustration indiquent ce qui suit.
SS : dimension de l'écran en diagonale (pouces)
a : distance entre l'écran et le centre de l'objectif
b : distance entre le sol et le centre de l'objectif
c : distance entre le sol et la base des pieds réglables du projecteur
x : libre
N : minimum
M : maximum

Ejemplos de instalación (instalación en el suelo)

Installationsbeispiele (Installation am Boden)

Esempi di installazione (Installazione al pavimento)

4:3

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-2075

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		12370 (487 1/8)	15420 (607 1/4)	18470 (727 3/8)	23050 (907 5/8)	27630 (1088)	30680 (1208 1/8)	38310 (1508 1/2)	45930 (1808 1/2)	53560 (2109)	61190 (2409 3/8)	68820 (2709 7/8)	76450 (3010 1/4)
b	N	x-590 (x-23 1/4)	x-737 (x-29 1/8)	x-884 (x-34 7/8)	x-1106 (x-43 5/8)	x-1327 (x-52 1/4)	x-1474 (x-58 1/8)	x-1843 (x-72 5/8)	x-2211 (x-87 1/8)	x-2580 (x-101 5/8)	x-2948 (x-116 1/8)	x-3317 (x-130 5/8)	x-3685 (x-145 1/8)
	M	x											
c	N	x-745 (x-29 3/8)	x-892 (x-35 1/8)	x-1039 (x-41)	x-1261 (x-49 3/4)	x-1482 (x-58 3/8)	x-1629 (x-64 1/4)	x-1998 (x-78 3/4)	x-2366 (x-93 1/4)	x-2735 (x-107 3/4)	x-3103 (x-122 1/4)	x-3472 (x-136 3/4)	x-3840 (x-151 1/4)
	M	x-142 (x-5 5/8)											

a = (SS × 269.100/1.764) + 163
b (N) = x – (SS/1.764 × 13.0)
c (N) = x – (SS/1.764 × 13.0 + 155.0)

■ VPLL-Z2019

SS		40	80	100	120	150	180	200	250	300	350	400	450	500
a	N	1530 (60 1/4)	3170 (124 7/8)	3990 (157 1/8)	4800 (189)	6030 (237 7/16)	7260 (285 7/8)	8080 (318 1/4)	10120 (398 1/2)	12170 (479 1/4)	14210 (559 5/8)	16260 (640 1/4)	18300 (720 5/8)	20350 (801 3/8)
	M	1950 (76 7/8)	4000 (157 1/2)	5020 (197 11/16)	6040 (237 7/8)	7580 (298 1/2)	9120 (359 1/8)	10140 (399 3/8)	12700 (500 1/8)	15260 (600 7/8)	17820 (701 3/4)	20380 (802 1/2)	22940 (903 3/8)	25510 (1004 1/2)
b	N	x-295 (x-11 5/8)	x-590 (x-23 1/4)	x-737 (x-29 1/8)	x-884 (x-34 7/8)	x-1106 (x-43 5/8)	x-1327 (x-52 1/4)	x-1474 (x-58 1/8)	x-1843 (x-72 5/8)	x-2211 (x-87 1/8)	x-2580 (x-101 5/8)	x-2948 (x-116 1/8)	x-3317 (x-130 5/8)	x-3685 (x-145 1/8)
	M	x												
c	N	x-450 (x-17 3/4)	x-745 (x-29 3/8)	x-892 (x-35 1/8)	x-1039 (x-41)	x-1261 (x-49 3/4)	x-1482 (x-58 3/8)	x-1629 (x-64 1/4)	x-1998 (x-78 3/4)	x-2366 (x-93 1/4)	x-2735 (x-107 3/4)	x-3103 (x-122 1/4)	x-3472 (x-136 3/4)	x-3840 (x-151 1/4)
	M	x-142 (x-5 5/8)												

a (N) = ((SS × 70.383/1.764) – 102) × 1.025
a (M) = ((SS × 92.644/1.764) – 104) × 0.975
b (N) = x – (SS/1.764 × 13.0)
c (N) = x – (SS/1.764 × 13.0 + 155.0)

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el suelo y el centro del objetivo
c : distancia entre el suelo y la base de los ajustadores del proyector
x : libre
N : mínimo
M : máximo

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
x : frei
N : Mindestens
M : Höchstenss

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza fra lo schermo e il centro dell'obiettivo
b : distanza tra il pavimento e il centro dell'obiettivo
c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
x : libero
N : Minima
M : Massima

設置例（天井つり）

Installation Examples (Ceiling Installation)

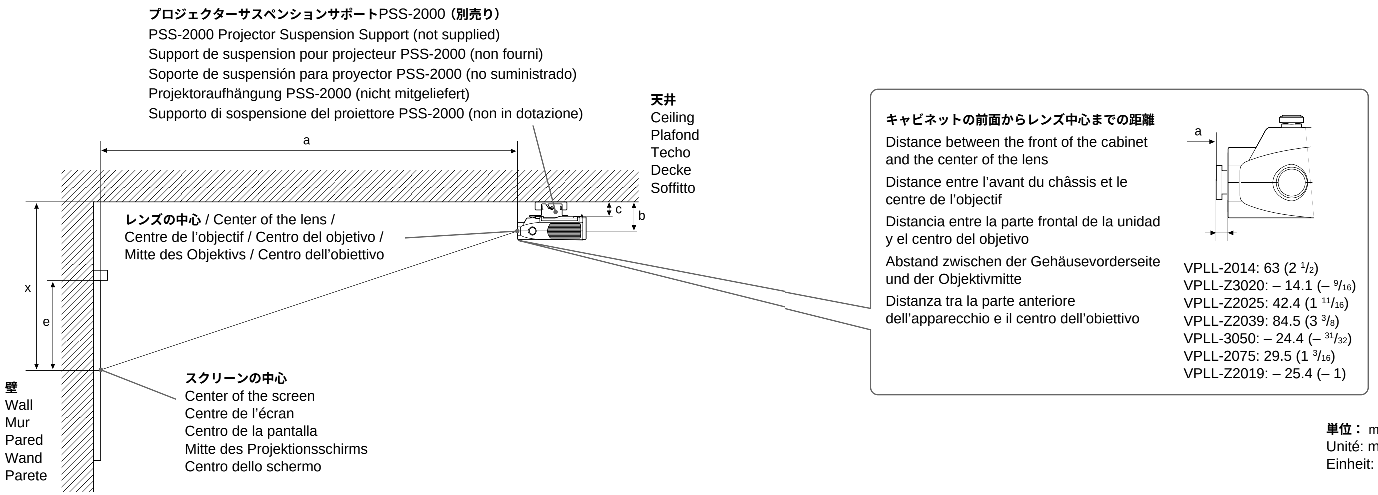
Exemples d’installation (Installation au plafond)

Ejemplos de instalación (Instalación en el techo)

Installationsbeispiele (Installation an der Decke)

Esempi di installazione (Installazione al soffitto)

E



プロジェクターサスペンションサポートPSS-2000（別売り）
PSS-2000 Projector Suspension Support (not supplied)
Support de suspension pour projecteur PSS-2000 (non fourni)
Soporte de suspensión para proyector PSS-2000 (no suministrado)
Projektoraufhängung PSS-2000 (nicht mitgeliefert)
Supporto di sospensione del proiettore PSS-2000 (non in dotazione)

天井
Ceiling
Plafond
Techo
Decke
Soffitto

レンズの中心 / Center of the lens /
Centre de l’objectif / Centro del objetivo /
Mitte des Objektivs / Centro dell’obiettivo

壁
Wall
Mur
Pared
Wand
Parete

スクリーンの中心
Center of the screen
Centre de l’écran
Centro de la pantalla
Mitte des Projektionsschirms
Centro dello schermo

キャビネットの前面からレンズ中心までの距離
Distance between the front of the cabinet and the center of the lens
Distance entre l’avant du châssis et le centre de l’objectif
Distancia entre la parte frontal de la unidad y el centro del objetivo
Abstand zwischen der Gehäusevorderseite und der Objektivmitte
Distanza tra la parte anteriore dell’apparecchio e il centro dell’obiettivo

VPLL-2014: 63 (2 $^{1}/_{2}$)
VPLL-Z3020: – 14.1 (– $^{9}/_{16}$)
VPLL-Z2025: 42.4 (1 $^{11}/_{16}$)
VPLL-Z2039: 84.5 (3 $^{3}/_{8}$)
VPLL-3050: – 24.4 (– $^{31}/_{32}$)
VPLL-2075: 29.5 (1 $^{3}/_{16}$)
VPLL-Z2019: – 25.4 (– 1)

単位： mm（インチ）/ Unit: mm (inches)
Unité: mm (pouces) / Unidad: mm (pulgadas) /
Einheit: mm (Zoll) / Unità: mm (pollici)

日本語

プロジェクターを天井からつり下げて設置する場合の設置例を示します。E
天井つりの場合は、プロジェクターサスペンションサポートPSS-2000をご使用ください。
設置は、代理店またはソニーサービスにおまかせください。

「5：4表示」の設置寸法については、20～23ページ、「4：3表示」の設置寸法については、24～27ページの表をご覧ください。

イラスト中のアルファベットは、以下の距離を示します。
a：レンズの中心からスクリーンまでの距離
b：天井からレンズの中心までの距離
c：天井からサスペンションサポートの取り付け面までの距離
e：スクリーン有効画面上端部からスクリーン中心までの距離
x：天井からスクリーンの中心までの距離

English

This section describes the examples for installing the projector on the ceiling. **E**
When installing the projector on the ceiling, use the PSS-2000 Projector Suspension Support.
For ceiling installation, ask for qualified Sony personnel only.

See the charts on pages 20 to 23 concerning the installation measurements for “5:4 display mode,” and on pages 24 to 27 for “4:3 display mode.”

The alphabetical letters in the illustration indicate the distances below.
a : Distance between the screen and the center of the lens
b : Distance between the ceiling and the center of the lens
c : Distance between the ceiling and the mounting surface of the suspension bracket
e : Distance between the top of the available screen range and the center of the screen
x : Distance between the ceiling and the center of the screen

Français

Cette section décrit des exemples d’installation du projecteur au plafond. **E**
Lorsque vous installez le projecteur au plafond, utilisez le support de suspension pour projecteur PSS-2000.
Pour une installation au plafond, adressez-vous uniquement à un personnel qualifié Sony.

Reportez-vous aux tableaux des pages 20 à 23 sur les mesures d’installation pour un “mode d’affichage 5:4” et des pages 24 à 27 pour un “mode d’affichage 4:3”.

Les caractères alphabétiques dans l’illustration indiquent les distances ci-dessous.
a : distance entre l’écran et le centre de l’objectif
b : distance entre le plafond et le centre de l’objectif
c : distance entre le plafond et la surface de montage du support de suspension
e : distance entre le sommet de la zone d’écran disponible et le centre de l’écran
x : distance entre le plafond et le centre de l’écran

Español

En esta sección se muestran ejemplos para instalar el proyector en el techo. **E**
Para instalar el proyector en el techo, utilice el soporte de suspensión para proyector PSS-2000.
Para realizar la instalación en el techo, solicite asistencia técnica únicamente a personal especializado de Sony.

Consulte las tablas de las páginas 20 a 23 en relación con las medidas de instalación para el “formato 5:4”, y las páginas 24 a 27 para el “formato 4:3”.

Las letras alfabéticas de la ilustración indican las distancias mostradas a continuación.
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el techo y el centro del objetivo
c : distancia entre el techo y la superficie de montaje del soporte de suspensión
e : distancia entre la parte superior del margen disponible de pantalla y el centro de ésta
x : distancia entre el techo y el centro de la pantalla

Deutsch

In diesem Abschnitt finden Sie Beispiele für das Installieren des Projektors an der Decke. **E**
Zur Installation des Projektors an der Decke benötigen Sie die Projektoraufhängung PSS-2000.
Wenn Sie das Gerät an der Decke montieren wollen, wenden Sie sich bitte an qualifiziertes Sony-Personal.

In den Tabellen auf Seite 20 bis 23 finden Sie die Installationsabmessungen den “5:4-Anzeigemodus” und auf Seite 24 bis 27 die Abmessungen den “4:3-Anzeigemodus”.

Die Buchstaben in der Abbildung beziehen sich auf die unten beschriebenen Abstände.
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen der Decke und der Mitte des Objektivs
c : Abstand zwischen der Decke und der Montagefläche der Aufhängehalterung
e : Abstand zwischen der Oberkante des nutzbaren Projektionsschirmbereichs und der Projektionsschirmmitte
x : Abstand zwischen der Decke und der Mitte des Projektionsschirms

Italiano

Questa sezione descrive gli esempi di installazione al soffitto del proiettore. **E**
Quando viene installato il proiettore sul soffitto utilizzare il supporto di sospensione del proiettore PSS-2000.
Per l’installazione al soffitto, rivolgersi esclusivamente a personale qualificato Sony.

Vedere i diagrammi da pagina 20 a pagina 23 relative alle misure di installazione per “il modo visualizzazione 5:4” e da pagina 24 a pagina 27 per “il modo visualizzazione 4:3”.

Le lettere nell'illustrazione indicano le distanze descritte di seguito.
a : Distanza fra lo schermo e il centro dell’obiettivo
b : Distanza tra il soffitto e il centro dell’obiettivo
c : Distanza tra il soffitto e la superficie di montaggio del supporto di sospensione
e : Distanza tra la parte superiore dell’area dello schermo disponibile e il centro dello schermo
x : Distanza tra il soffitto e il centro dello schermo

設置例（天井つり）

Installation Examples (Ceiling Installation)

Exemples d’installation (Installation au plafond)

5:4

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-2014

SS		42	80	100	120	150	180	200	250	300	350	400	450	500
a		1040 (41)	2210 (87 1/8)	2650 (104 3/8)	3210 (126 1/2)	4040 (159 1/8)	4870 (191 7/8)	5430 (213 7/8)	6820 (268 5/8)	8200 (322 7/8)	9590 (377 5/8)	10980 (432 3/8)	12370 (487 1/8)	13750 (541 1/2)
b	N	c+131 (c+5 1/4)												
	M	c+140 (c+5 1/2)												
e		317 (12 1/2)	605 (23 7/8)	756 (29 7/8)	907 (35 3/4)	1134 (44 3/4)	1361 (53 5/8)	1512 (59 5/8)	1890 (74 1/2)	2268 (89 3/8)	2646 (104 1/4)	3024 (119 3/32)	3402 (134)	3780 (148 7/8)
x	N	c +131 (c+5 1/4)												
	M	c +338 (c+13 3/8)	c +537 (c+21 1/4)	c +612 (c+24 1/8)	c +707 (c+27 7/8)	c +849 (c+33 1/2)	c+991 (c+39 1/8)	c+1085 (c+42 3/4)	c +1322 (c+52 1/8)	c +1558 (c+61 3/8)	c +1794 (c+70 3/4)	c +2031 (c+80)	c +2267 (c+89 3/8)	c +2504 (c+98 5/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.807 × 0.96 × 8.9 + 139.5)

■ VPLL-Z3020

SS		42	80	100	120	150	180	200	250	300	350	400	450	500
a	N	1570 (61 7/8)	3090 (121 3/4)	3900 (153 5/8)	4700 (185 1/8)	5910 (232 3/4)	7120 (280 3/8)	7920 (311 7/8)	9930 (391)	11940 (470 1/4)	13950 (549 3/8)	15960 (628 1/2)	17970 (707 5/8)	19980 (786 3/4)
	M	2000 (78 3/4)	3920 (154 3/8)	4920 (193 3/4)	5930 (233 1/2)	7440 (293)	8960 (352 7/8)	9960 (392 1/4)	12480 (491 1/2)	15000 (590 5/8)	17520 (689 7/8)	20040 (789 1/8)	22560 (888 3/8)	25080 (987 5/8)
b	N	c+131 (c+5 1/4)												
	M	c+143 (c+5 3/4)												
e		317 (12 1/2)	605 (23 7/8)	756 (29 7/8)	907 (35 3/4)	1134 (44 3/4)	1361 (53 5/8)	1512 (59 5/8)	1890 (74 1/2)	2268 (89 3/8)	2646 (104 1/4)	3024 (119 3/32)	3402 (134)	3780 (148 7/8)
x	N	c+131 (c+5 1/4)												
	M	c+429 (c+17)	c+687 (c+27 1/8)	c+823 (c+32 1/2)	c+959 (c+37 7/8)	c+1163 (c+45 7/8)	c+1367 (c+53 7/8)	c+1503 (c+59 1/4)	c+1844 (c+72 5/8)	c+2184 (c+86)	c+2524 (c+99 1/2)	c+2864 (c+112 7/8)	c+3204 (c+126 1/4)	c+3544 (c+139 5/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.807 × 0.96 × 12.8 + 143.4)

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS: スクリーンサイズ対角（インチ）
a ： レンズの中心からスクリーンまでの距離
b ： 天井からレンズの中心までの距離
c ： 天井からサスペンションサポートの取り付け面までの距離
e ： スクリーン有効画面上端部からスクリーン中心までの距離
x ： 天井からスクリーンの中心までの距離
N： 最小値
M： 最大値

プロジェクターサスペンションサポート PSS-2000使用時：
c = 104.7、xの最小値 ＝ e

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : Distance between the screen and the center of the lens
b : Distance between the ceiling and the center of the lens
c : Distance between the ceiling and the mounting surface of the suspension bracket
e : Distance between the top of the available screen range and the center of the screen
x : Distance between the ceiling and the center of the screen
N : minimum
M : maximum

When using the PSS-2000 projector suspension support:
c = 104.7 (4 1/8), x (minimum) = e

Français

Les mesures d’installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l’illustration indiquent ce qui suit.
SS : dimension de l’écran en diagonale (pouces)
a : distance entre l’écran et le centre de l’objectif
b : distance entre le plafond et le centre de l’objectif
c : distance entre le plafond et la surface de montage du support de suspension
e : distance entre le sommet de la zone d’écran disponible et le centre de l’écran
x : distance entre le plafond et le centre de l’écran
N : minimum
M : maximum

Lorsque vous utilisez le support de suspension pour projecteur PSS-2000:
c = 104,7 (4 1/8), x (minimum) = e

Ejemplos de instalación (Instalación en el techo)

Installationsbeispiele (Installation an der Decke)

Esempi di installazione (Installazione al soffitto)

5:4

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z2025

SS		84	100	120	150	180	200	250	300	350	400	450	500
a	N	4030 (158 11/16)	4830 (190 1/4)	5840 (230)	7340 (289 1/8)	8850 (348 1/2)	9850 (387 7/8)	12360 (486 3/4)	14860 (585 1/8)	17370 (684)	19880 (782 7/8)	22380 (881 1/4)	24890 (980 1/8)
	M	6240 (245 3/4)	7460 (293 3/4)	8990 (354)	11280 (444 1/4)	13570 (534 3/8)	15090 (594 1/4)	18910 (744 5/8)	22720 (894 5/8)	26540 (1045 1/8)	30350 (1195 1/8)	34170 (1345 1/2)	37990 (1495 7/8)
b	N	c+131 (c+5 1/4)											
	M	c+143 (c+5 3/4)											
e		635 (25)	756 (29 7/8)	907 (35 3/4)	1134 (44 3/4)	1361 (53 5/8)	1512 (59 5/8)	1890 (74 1/2)	2268 (89 3/8)	2646 (104 1/4)	3024 (119 3/32)	3402 (134)	3780 (148 7/8)
x	N	c+131 (c+5 1/4)											
	M	c+715 (c+28 1/4)	c+823 (c+32 1/2)	c+959 (c+37 7/8)	c+1163 (c+45 7/8)	c+1367 (c+53 7/8)	c+1503 (c+59 1/4)	c+1844 (c+72 5/8)	c+2184 (c+86)	c+2524 (c+99 1/2)	c+2864 (c+112 7/8)	c+3204 (c+126 1/4)	c+3544 (c+139 5/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.807 × 0.96 × 12.8 + 143.4)

■ VPLL-Z2039

SS		84	100	120	150	180	200	250	300	350	400	450	500
a	N	6440 (253 5/8)	7690 (302 7/8)	9270 (365 1/8)	11630 (458)	13980 (550 1/2)	15560 (612 3/4)	19490 (767 1/2)	23420 (922 1/4)	27350 (1077)	31280 (1231 3/4)	35210 (1386 1/2)	39140 (1541 1/4)
	M	9260 (364 5/8)	11060 (435 1/2)	13300 (523 3/4)	16670 (656 1/2)	20030 (788 11/16)	22280 (877 3/8)	27880 (1097 7/8)	33490 (1318 3/4)	39100 (1539 5/8)	44710 (1760 1/2)	50320 (1981 3/8)	55930 (2202 1/4)
b	N	c+131 (c+5 1/4)											
	M	c+143 (c+5 3/4)											
e		635 (25)	756 (29 7/8)	907 (35 3/4)	1134 (44 3/4)	1361 (53 5/8)	1512 (59 5/8)	1890 (74 1/2)	2268 (89 3/8)	2646 (104 1/4)	3024 (119 3/32)	3402 (134)	3780 (148 7/8)
x	N	c+131 (c+5 1/4)											
	M	c+715 (c+28 1/4)	c+823 (c+32 1/2)	c+959 (c+37 7/8)	c+1163 (c+45 7/8)	c+1367 (c+53 7/8)	c+1503 (c+59 1/4)	c+1844 (c+72 5/8)	c+2184 (c+86)	c+2524 (c+99 1/2)	c+2864 (c+112 7/8)	c+3204 (c+126 1/4)	c+3544 (c+139 5/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.807 × 0.96 × 12.8 + 143.4)

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el techo y el centro del objetivo
c : distancia entre el techo y la superficie de montaje del soporte de suspensión
e : distancia entre la parte superior del margen disponible de pantalla y el centro de ésta
x : distancia entre el techo y el centro de la pantalla
N : mínimo
M : máximo

Si utiliza el soporte de suspensión para proyector PSS-2000:
c = 104,7 (4 1/8), x (mínimo) = e

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen der Decke und der Mitte des Objektivs
c : Abstand zwischen der Decke und der Montagefläche der Aufhängehalterung
e : Abstand zwischen der Oberkante des nutzbaren Projektionsschirmbereichs und der Projektionsschirmmitte
x : Abstand zwischen der Decke und der Mitte des Projektionsschirms
N : Mindestens
M : Höchstens

Wenn Sie die Projektoraufhängung PSS-2000 benutzen, gilt:
c = 104,7, x (Mindestens) = e

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : Distanza fra lo schermo e il centro dell’obiettivo
b : Distanza tra il soffitto e il centro dell’obiettivo
c : Distanza tra il soffitto e la superficie di montaggio del supporto di sospensione
e : Distanza tra la parte superiore dell’area dello schermo disponibile e il centro dello schermo
x : Distanza tra il soffitto e il centro dello schermo
N : Minima
M : Massima

Quando viene utilizzato il supporto di sospensione per proiettori PSS-2000:
c = 104,7, x (minima) = e

設置例（天井つり）

Installation Examples (Ceiling Installation)

Exemples d’installation (Installation au plafond)

Ejemplos de instalación (Instalación en el techo)

Installationsbeispiele (Installation an der Decke)

Esempi di installazione (Installazione al soffitto)

5:4

■ VPLL-3050

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		84	100	120	150	180	200	250	300	350	400	450	500
a		8070 (317 7/8)	9600 (378)	11520 (453 5/8)	14390 (566 5/8)	17260 (679 5/8)	19180 (755 1/4)	23960 (943 1/2)	28750 (1132 1/8)	33540 (1320 3/4)	38320 (1508 7/8)	43110 (1697 1/2)	47900 (1886 1/8)
b	N	c+131 (c+5 1/4)											
	M	c+143 (c+5 3/4)											
e		635 (25)	756 (29 7/8)	907 (35 3/4)	1134 (44 3/4)	1361 (53 5/8)	1512 (59 5/8)	1890 (74 1/2)	2268 (89 3/8)	2646 (104 1/4)	3024 (119 3/32)	3402 (134)	3780 (148 7/8)
x	N	c+131 (c+5 1/4)											
	M	c+715 (c+28 1/4)	c+823 (c+32 1/2)	c+959 (c+37 7/8)	c+1163 (c+45 7/8)	c+1367 (c+53 7/8)	c+1503 (c+59 1/4)	c+1844 (c+72 5/8)	c+2184 (c+86)	c+2524 (c+99 1/2)	c+2864 (c+112 7/8)	c+3204 (c+126 1/4)	c+3544 (c+139 5/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.807 × 0.96 × 12.8 + 143.4)

■ VPLL-2075

SS		84	100	120	150	180	200	250	300	350	400	450	500
a		12170 (479 1/4)	14460 (569 3/8)	17320 (682)	21610 (851)	25900 (1019 7/8)	28760 (1132 1/2)	35910 (1414)	43050 (1695 1/8)	50200 (1976 5/8)	57350 (2258 1/4)	64500 (2539 3/4)	71650 (2821 1/4)
b	N	c+131 (c+5 1/4)											
	M	c+143 (c+5 3/4)											
e		635 (25)	756 (29 7/8)	907 (35 3/4)	1134 (44 3/4)	1361 (53 5/8)	1512 (59 5/8)	1890 (74 1/2)	2268 (89 3/8)	2646 (104 1/4)	3024 (119 3/32)	3402 (134)	3780 (148 7/8)
x	N	c+131 (c+5 1/4)											
	M	c+715 (c+28 1/4)	c+823 (c+32 1/2)	c+959 (c+37 7/8)	c+1163 (c+45 7/8)	c+1367 (c+53 7/8)	c+1503 (c+59 1/4)	c+1844 (c+72 5/8)	c+2184 (c+86)	c+2524 (c+99 1/2)	c+2864 (c+112 7/8)	c+3204 (c+126 1/4)	c+3544 (c+139 5/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.807 × 0.96 × 12.8 + 143.4)

5:4

■ VPLL-Z2019

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		42	80	100	120	150	180	200	250	300	350	400	450	500
a	N	1500 (59 1/8)	2960 (116 5/8)	3730 (146 7/8)	4490 (176 7/8)	5640 (222 1/8)	6790 (267 3/8)	7560 (297 3/4)	9480 (373 3/8)	11390 (448 1/2)	13310 (524 1/8)	15230 (599 3/4)	17140 (675)	19060 (750 1/2)
	M	1910 (75 1/4)	3740 (147 3/8)	4700 (185 1/8)	5660 (222 7/8)	7100 (279 5/8)	8540 (336 3/8)	9500 (374 1/8)	11900 (468 5/8)	14300 (563 1/8)	16700 (657 5/8)	19090 (751 3/4)	21490 (846 1/4)	23890 (940 3/4)
b	N	c+131 (c+5 1/4)												
	M	c+143 (c+5 3/4)												
e		317 (12 1/2)	605 (23 7/8)	756 (29 7/8)	907 (35 3/4)	1134 (44 3/4)	1361 (53 5/8)	1512 (59 5/8)	1890 (74 1/2)	2268 (89 3/8)	2646 (104 1/4)	3024 (119 3/32)	3402 (134)	3780 (148 7/8)
x	N	c+131 (c+5 1/4)												
	M	c+429 (c+17)	c+687 (c+27 1/8)	c+823 (c+32 1/2)	c+959 (c+37 7/8)	c +1163 (c+45 7/8)	c+1367 (c+53 7/8)	c+1503 (c+59 1/4)	c+1844 (c+72 5/8)	c+2184 (c+86)	c+2524 (c+99 1/2)	c+2864 (c+112 7/8)	c+3204 (c+126 1/4)	c+3544 (c+139 5/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.807 × 0.96 × 12.8 + 143.4)

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS: スクリーンサイズ対角（インチ）
a : レンズの中心からスクリーンまでの距離
b : 天井からレンズの中心までの距離
c : 天井からサスペンションサポートの取り付け面までの距離
e : スクリーン有効画面上端部からスクリーン中心までの距離
x : 天井からスクリーンの中心までの距離
N : 最小値
M : 最大値

プロジェクターサスペンションサポート PSS-2000使用時：
c = 104.7、xの最小値 = e

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : Distance between the screen and the center of the lens
b : Distance between the ceiling and the center of the lens
c : Distance between the ceiling and the mounting surface of the suspension bracket
e : Distance between the top of the available screen range and the center of the screen
x : Distance between the ceiling and the center of the screen
N : minimum
M : maximum

When using the PSS-2000 projector suspension support:
c = 104.7 (4 1/8), x (minimum) = e

Français

Les mesures d’installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l’illustration indiquent ce qui suit.
SS : dimension de l’écran en diagonale (pouces)
a : distance entre l’écran et le centre de l’objectif
b : distance entre le plafond et le centre de l’objectif
c : distance entre le plafond et la surface de montage du support de suspension
e : distance entre le sommet de la zone d’écran disponible et le centre de l’écran
x : distance entre le plafond et le centre de l’écran
N : minimum
M : maximum

Lorsque vous utilisez le support de suspension pour projecteur PSS-2000:
c = 104,7 (4 1/8), x (minimum) = e

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el techo y el centro del objetivo
c : distancia entre el techo y la superficie de montaje del soporte de suspensión
e : distancia entre la parte superior del margen disponible de pantalla y el centro de ésta
x : distancia entre el techo y el centro de la pantalla
N : mínimo
M : máximo

Si utiliza el soporte de suspensión para proyector PSS-2000:
c = 104,7 (4 1/8), x (mínimo) = e

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen der Decke und der Mitte des Objektivs
c : Abstand zwischen der Decke und der Montagefläche der Aufhängehalterung
e : Abstand zwischen der Oberkante des nutzbaren Projektionsschirmbereichs und der Projektionsschirmmitte
x : Abstand zwischen der Decke und der Mitte des Projektionsschirms
N : Mindestens
M : Höchstens

Wenn Sie die Projektoraufhängung PSS-2000 benutzen, gilt:
c = 104,7, x (Mindestens) = e

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : Distanza fra lo schermo e il centro dell’obiettivo
b : Distanza tra il soffitto e il centro dell’obiettivo
c : Distanza tra il soffitto e la superficie di montaggio del supporto di sospensione
e : Distanza tra la parte superiore dell’area dello schermo disponibile e il centro dello schermo
x : Distanza tra il soffitto e il centro dello schermo
N : Minima
M : Massima

Quando viene utilizzato il supporto di sospensione per proiettori PSS-2000:
c = 104,7, x (minima) = e

設置例（天井つり）

Installation Examples (Ceiling Installation)

Exemples d’installation (Installation au plafond)

4:3

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-2014

SS		40	80	100	120	150	180	200	250	300	350	400	450	500
a		1060 (41 3/4)	2250 (88 5/8)	2840 (111 7/8)	3430 (135 1/8)	4320 (170 1/8)	5210 (205 1/4)	5800 (228 3/8)	7280 (286 3/4)	8760 (345)	10240 (403 1/4)	11720 (461 1/2)	13210 (520 1/4)	14690 (578 1/2)
b	N	c+131 (c+5 1/4)												
	M	c+140 (c+5 5/8)												
e		305 (12 1/8)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	N	c +131 (c+5 1/4)												
	M	c+363 (c+14 3/8)	c+585 (c+23 1/8)	c+696 (c+27 1/2)	c+807 (c+31 7/8)	c+974 (c+38 3/8)	c+1141 (c+45)	c+1252 (c+49 3/8)	c+1529 (c+60 1/4)	c+1807 (c+71 1/4)	c+2085 (c+82 1/8)	c+2363 (c+93 1/ 8)	c+2641 (c+104)	c+2919 (c+115)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.764 × 9.8 + 140.4)

■ VPLL-Z3020

SS		40	80	100	120	150	180	200	250	300	350	400	450	500
a	N	1590 (62 5/8)	3310 (130 3/8)	4170 (164 1/4)	5030 (198 1/16)	6310 (248 1/2)	7600 (299 1/4)	8460 (333 1/8)	10600 (417 3/8)	12750 (502 1/8)	14900 (586 3/4)	17040 (671)	19190 (755 5/8)	21330 (839 7/8)
	M	2030 (79 15/16)	4190 (165)	5260 (207 1/8)	6340 (249 3/4)	7950 (313 1/8)	9560 (376 1/2)	10640 (419)	13330 (524 7/8)	16020 (630 13/16)	18710 (736 3/4)	21400 (842 5/8)	24090 (948 5/8)	26780 (1054 1/2)
b	N	c+131 (c+5 1/4)												
	M	c+144 (c+5 3/4)												
e		305 (12 1/8)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	N	c+131 (c+5 1/4)												
	M	c +438 (c+17 1/4)	c +733 (c+28 7/8)	c +881 (c+34 3/4)	c +1028 (c+40 1/2)	c +1249 (c+49 1/4)	c +1470 (c+58)	c +1618 (c+63 3/4)	c +1986 (c+78 1/4)	c +2355 (c+92 3/4)	c +2723 (c+107 1/4)	c +3092 (c+121 3/4)	c +3460 (c+136 1/4)	c +3829 (c+150 7/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.764 × 13.0 + 143.6)

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS：スクリーンサイズ対角（インチ）
a ：レンズの中心からスクリーンまでの距離
b ：天井からレンズの中心までの距離
c ：天井からサスペンションサポートの取り付け面までの距離
e ：スクリーン有効画面上端部からスクリーン中心までの距離
x ：天井からスクリーンの中心までの距離
N：最小値
M：最大値

プロジェクターサスペンションサポート PSS-2000使用時：
c = 104.7、x の最小値 ＝ e

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : Distance between the screen and the center of the lens
b : Distance between the ceiling and the center of the lens
c : Distance between the ceiling and the mounting surface of the suspension bracket
e : Distance between the top of the available screen range and the center of the screen
x : Distance between the ceiling and the center of the screen
N : minimum
M : maximum

When using the PSS-2000 projector suspension support:
c = 104.7 (4 1/8), x (minimum) = e

Français

Les mesures d’installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l’illustration indiquent ce qui suit.
SS : dimension de l’écran en diagonale (pouces)
a : distance entre l’écran et le centre de l’objectif
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c : distance entre le plafond et la surface de montage du support de suspension
e : distance entre le sommet de la zone d’écran disponible et le centre de l’écran
x : distance entre le plafond et le centre de l’écran
N : minimum
M : maximum

Lorsque vous utilisez le support de suspension pour projecteur PSS-2000:
c = 104,7 (4 1/8), x (minimum) = e

Ejemplos de instalación (Instalación en el techo)

Installationsbeispiele (Installation an der Decke)

Esempi di installazione (Installazione al soffitto)

4:3

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z2025

SS		80	100	120	150	180	200	250	300	350	400	450	500
a	N	4100 (161 1/2)	5170 (203 5/8)	6240 (245 3/4)	7850 (309 1/8)	9450 (372 1/8)	10520 (414 1/4)	13200 (519 3/4)	15870 (625)	18550 (730 1/2)	21220 (835 5/8)	23900 (941 1/8)	26580 (1046 5/8)
	M	6340 (249 3/4)	7970 (313 7/8)	9600 (378)	12040 (474 1/8)	14490 (570 5/8)	16120 (634 3/4)	20190 (795)	24260 (955 1/4)	28330 (1115 1/2)	32400 (1275 3/4)	36480 (1436 1/2)	40550 (1596 3/4)
b	N	c+131 (c+5 1/4)											
	M	c+144 (c+5 3/4)											
e		610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	N	c+131 (c+5 1/4)											
	M	c+733 (c+28 7/8)	c+881 (c+34 3/4)	c+1028 (c+40 1/2)	c+1249 (c+49 1/4)	c+1470 (c+58)	c+1618 (c+63 3/4)	c+1986 (c+78 1/4)	c+2355 (c+92 3/4)	c+2723 (c+107 1/4)	c+3092 (c+121 3/4)	c+3460 (c+136 1/4)	c+3829 (c+150 7/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.764 × 13.0 + 143.6)

■ VPLL-Z2039

SS		80	100	120	150	180	200	250	300	350	400	450	500
a	N	6540 (257 5/8)	8220 (323 3/4)	9900 (389 7/8)	12420 (489 1/8)	14930 (587 7/8)	16610 (654 1/8)	20810 (819 1/2)	25000 (984 3/8)	29200 (1149 3/4)	33390 (1314 3/4)	37590 (1480 1/8)	41780 (1645 1/8)
	M	9420 (371)	11810 (465 1/8)	14210 (559 5/8)	17800 (700 7/8)	21390 (842 1/4)	23780 (936 3/8)	29770 (1172 1/4)	35750 (1407 3/4)	41740 (1643 5/8)	47720 (1879)	53710 (2114 7/8)	59690 (2350 3/8)
b	N	c+131 (c+5 1/4)											
	M	c+144 (c+5 3/4)											
e		610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	N	c+131 (c+5 1/4)											
	M	c+733 (c+28 7/8)	c+881 (c+34 3/4)	c+1028 (c+40 1/2)	c+1249 (c+49 1/4)	c+1470 (c+58)	c+1618 (c+63 3/4)	c+1986 (c+78 1/4)	c+2355 (c+92 3/4)	c+2723 (c+107 1/4)	c+3092 (c+121 3/4)	c+3460 (c+136 1/4)	c+3829 (c+150 7/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.764 × 13.0 + 143.6)

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el techo y el centro del objetivo
c : distancia entre el techo y la superficie de montaje del soporte de suspensión
e : distancia entre la parte superior del margen disponible de pantalla y el centro de ésta
x : distancia entre el techo y el centro de la pantalla
N : mínimo
M : máximo

Si utiliza el soporte de suspensión para proyector PSS-2000:
c = 104,7 (4 1/8), x (mínimo) = e

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen der Decke und der Mitte des Objektivs
c : Abstand zwischen der Decke und der Montagefläche der Aufhängehalterung
e : Abstand zwischen der Oberkante des nutzbaren Projektionsschirmbereichs und der Projektionsschirmmitte
x : Abstand zwischen der Decke und der Mitte des Projektionsschirms
N : Mindestens
M : Höchstens

Wenn Sie die Projektoraufhängung PSS-2000 benutzen, gilt:
c = 104,7, x (Mindestens) = e

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : Distanza fra lo schermo e il centro dell’obiettivo
b : Distanza tra il soffitto e il centro dell’obiettivo
c : Distanza tra il soffitto e la superficie di montaggio del supporto di sospensione
e : Distanza tra la parte superiore dell’area dello schermo disponibile e il centro dello schermo
x : Distanza tra il soffitto e il centro dello schermo
N : Minima
M : Massima

Quando viene utilizzato il supporto di sospensione per proiettori PSS-2000:
c = 104,7, x (minima) = e

http://getMANUAL.com

設置例（天井つり）

Installation Examples (Ceiling Installation)

Exemples d’installation (Installation au plafond)

4:3

■ VPLL-3050

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		8200 (322 7/8)	10250 (403 5/8)	12290 (484)	15350 (604 1/2)	18420 (725 3/8)	20460 (805 5/8)	25570 (1006 7/8)	30680 (1208 1/8)	35790 (1409 1/4)	40900 (1610 1/2)	46000 (1811 1/4)	51110 (2012 1/2)
b	N	c+131 (c+5 1/4)											
	M	c+144 (c+5 3/4)											
e		610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	N	c+131 (c+5 1/4)											
	M	c+733 (c+28 7/8)	c+881 (c+34 3/4)	c+1028 (c+40 1/2)	c+1249 (c+49 1/4)	c+1470 (c+58)	c+1618 (c+63 3/4)	c+1986 (c+78 1/4)	c+2355 (c+92 3/4)	c+2723 (c+107 1/4)	c+3092 (c+121 3/4)	c+3460 (c+136 1/4)	c+3829 (c+150 7/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.764 × 13.0 + 143.6)

■ VPLL-2075

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		12370 (487 1/8)	15420 (607 1/4)	18470 (727 3/8)	23050 (907 5/8)	27630 (1088)	30680 (1208 1/8)	38310 (1508 1/2)	45930 (1808 1/2)	53560 (2109)	61190 (2409 3/8)	68820 (2709 7/8)	76450 (3010 1/4)
b	N	c+131 (c+5 1/4)											
	M	c+144 (c+5 3/4)											
e		610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	N	c+131 (c+5 1/4)											
	M	c+733 (c+28 7/8)	c+881 (c+34 3/4)	c+1028 (c+40 1/2)	c+1249 (c+49 1/4)	c+1470 (c+58)	c+1618 (c+63 3/4)	c+1986 (c+78 1/4)	c+2355 (c+92 3/4)	c+2723 (c+107 1/4)	c+3092 (c+121 3/4)	c+3460 (c+136 1/4)	c+3829 (c+150 7/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.764 × 13.0 + 143.6)

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS：スクリーンサイズ対角（インチ）
a ：レンズの中心からスクリーンまでの距離
b ：天井からレンズの中心までの距離
c ：天井からサスペンションサポートの取り付け面までの距離
e ：スクリーン有効画面上端部からスクリーン中心までの距離
x ：天井からスクリーンの中心までの距離
N：最小値
M：最大値

プロジェクターサスペンションサポート
PSS-2000**使用時：**
c = 104.7、xの最小値 ＝ e

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : Distance between the screen and the center of the lens
b : Distance between the ceiling and the center of the lens
c : Distance between the ceiling and the mounting surface of the suspension bracket
e : Distance between the top of the available screen range and the center of the screen
x : Distance between the ceiling and the center of the screen
N : minimum
M : maximum

When using the PSS-2000 projector suspension support:
c = 104.7 (4 1/8), x (minimum) = e

Français

Les mesures d’installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l’illustration indiquent ce qui suit.
SS : dimension de l’écran en diagonale (pouces)
a : distance entre l’écran et le centre de l’objectif
b : distance entre le plafond et le centre de l’objectif
c : distance entre le plafond et la surface de montage du support de suspension
e : distance entre le sommet de la zone d’écran disponible et le centre de l’écran
x : distance entre le plafond et le centre de l’écran
N : minimum
M : maximum

Lorsque vous utilisez le support de suspension pour projecteur PSS-2000:
c = 104,7 (4 1/8), x (minimum) = e

Ejemplos de instalación (Instalación en el techo)

Installationsbeispiele (Installation an der Decke)

Esempi di installazione (Installazione al soffitto)

4:3

■ VPLL-Z2019

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		40	80	100	120	150	180	200	250	300	350	400	450	500
a	N	1530 (60 1/4)	3170 (124 7/8)	3990 (157 1/8)	4800 (189)	6030 (237 7/16)	7260 (285 7/8)	8080 (318 1/4)	10120 (398 1/2)	12170 (479 1/4)	14210 (559 5/8)	16260 (640 1/4)	18300 (720 5/8)	20350 (801 3/8)
	M	1950 (76 7/8)	4000 (157 1/2)	5020 (197 11/16)	6040 (237 7/8)	7580 (298 1/2)	9120 (359 1/8)	10140 (399 3/8)	12700 (500 1/8)	15260 (600 7/8)	17820 (701 3/4)	20380 (802 1/2)	22940 (903 3/8)	25510 (1004 1/2)
b	N	c+131 (c+5 1/4)												
	M	c+144 (c+5 3/4)												
e		305 (12 1/8)	610 (24 1/8)	762 (30)	914 (36)	1143 (45)	1372 (54 1/8)	1524 (60)	1905 (75 1/8)	2286 (90 1/8)	2667 (105 1/8)	3048 (120 1/16)	3429 (135 1/8)	3810 (150 1/8)
x	N	c+131 (c+5 1/4)												
	M	c+438 (c+17 1/4)	c+733 (c+28 7/8)	c+881 (c+34 3/4)	c+1028 (c+40 1/2)	c+1249 (c+49 1/4)	c+1470 (c+58)	c+1618 (c+63 3/4)	c+1986 (c+78 1/4)	c+2355 (c+92 3/4)	c+2723 (c+107 1/4)	c+3092 (c+121 3/4)	c+3460 (c+136 1/4)	c+3829 (c+150 7/8)

e = SS × 0.30 × 25.4
x (M) = c + (SS/1.764 × 13.0 + 143.6)

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el techo y el centro del objetivo
c : distancia entre el techo y la superficie de montaje del soporte de suspensión
e : distancia entre la parte superior del margen disponible de pantalla y el centro de ésta
x : distancia entre el techo y el centro de la pantalla
N : mínimo
M : máximo

Si utiliza el soporte de suspensión para proyector PSS-2000:
c = 104,7 (4 1/8), x (mínimo) = e

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen der Decke und der Mitte des Objektivs
c : Abstand zwischen der Decke und der Montagefläche der Aufhängehalterung
e : Abstand zwischen der Oberkante des nutzbaren Projektionsschirmbereichs und der Projektionsschirmmitte
x : Abstand zwischen der Decke und der Mitte des Projektionsschirms
N : Mindestens
M : Höchstens

Wenn Sie die Projektoraufhängung PSS-2000 benutzen, gilt:
c = 104,7, x (Mindestens) = e

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : Distanza fra lo schermo e il centro dell’obiettivo
b : Distanza tra il soffitto e il centro dell’obiettivo
c : Distanza tra il soffitto e la superficie di montaggio del supporto di sospensione
e : Distanza tra la parte superiore dell’area dello schermo disponibile e il centro dello schermo
x : Distanza tra il soffitto e il centro dello schermo
N : Minima
M : Massima

Quando viene utilizzato il supporto di sospensione per proiettori PSS-2000:
c = 104,7, x (minima) = e

プロジェクタースタンド SU-PJ2000を使用した設置

日本語

スタックが可能なスクリーンサイズ

VPLL-Z3020、VPLL-Z2019、VPLL-Z2025またはVPLL-Z2039を取り付けたとき、ツインスタックの場合は80インチから500インチのスクリーン、トリプルスタックの場合は100インチから500インチのスクリーンがご使用になれます。

ご注意

- **VPLL-3050、VPLL-2009、VPLL-2014またはVPLL-2075を取り付けたときは、スタックはできません。**
- **安全にお使いになるため、またメンテナンスのために、設置する際は壁からの距離を左右各30cm、後方70cm以上離して設置してください。**

◆ プロジェクタースタンドSU-PJ2000の取付けかたは、プロジェクタースタンドSU-PJ2000に付属している取付説明書をご覧ください。

スタックをする際のご注意

2台または3台のプロジェクターの画像を正しく重ね合わせるためにレンズのズームが可変範囲の中心になるように設置してください。

1. **スタックの設置例のa値に従ってプロジェクターを設置する。**
2. **ズームを使って上下のプロジェクターからの画像がスクリーンいっぱいに映るように画像サイズを調整する。**

Installing the Projectors Using the SU-PJ2000 Projector Stand

English

Available screen size for stacking

When attaching the VPLL-Z3020, VPLL-Z2019, VPLL-Z2025 and VPLL-Z2039 lens (not supplied), 80 to 500-inches screens are available for twin stack installation, and 100 to 500-inches screens are available for triple stack installation.

Notes

- If the VPLL-3050, VPLL-2009, VPLL-2014 or VPLL-2075 lens is mounted, you cannot perform stack installation.
- For safety and maintenance purposes, install the projectors away from the wall. Leave a minimum space of 30 cm (11 7/8 inches) from both sides and a minimum space of 70 cm (27 5/8 inches) from the rear.

For details on how to install the SU-PJ2000 projector stand, refer to the installation manual supplied with the SU-PJ2000 projector stand.

Note on stacking

To properly align the pictures from both projectors, set the zoom to the center of the adjustment range.

1. Install the projector following the “a” value in the stacking example.
2. Use the zoom to align the pictures from the first and second projectors so that they fill the screen.

Installation des projecteurs avec le support pour projecteur SU-PJ2000

Français

Format d’écran disponible pour la superposition

Si vous montez un objectif VPLL-Z3020, VPLL-Z2019, VPLL-Z2025 ou VPLL-Z2039 (non fournis), des écrans de 80 à 500 pouces sont disponibles pour une installation en double superposition et de 100 à 500 pouces pour une installation en triple superposition.

Remarques

- Si l’objectif VPLL-3050, VPLL-2009, VPLL-2014 ou VPLL-2075 est monté, vous ne pouvez pas superposer les projecteurs.
- Pour des raisons de sécurité et d’entretien, installez les projecteurs à l’écart du mur. Laissez un espace libre de 30 cm (11 7/8 pouces) au minimum sur les côtés du projecteur et d’au moins 70 cm (27 5/8 pouces) à l’arrière.

Pour plus de détails sur l’installation du support pour projecteur SU-PJ2000, reportez-vous au mode d’emploi fourni avec le support pour projecteur SU-PJ2000.

Remarque sur la superposition

Pour aligner correctement l’image des deux projecteurs, réglez le zoom au centre de la plage de réglage.

1. Installez le projecteur conformément à la valeur “a” de l’exemple de superposition.
2. Utilisez le zoom pour aligner les images du premier et du second projecteur de façon à ce qu’elles remplissent l’écran.

Instalación de los proyectores utilizando el soporte para proyector SU-PJ2000

Español

Tamaño de pantalla disponible para apilamiento

Si utiliza los objetivos VPLL-Z3020, VPLL-Z2019, VPLL-Z2025 o VPLL-Z2039 (no suministrados), hay disponibles pantallas de 80 a 500 pulgadas para apilamientos de dos proyectores y pantallas de 100 a 500 pulgadas para apilamientos de tres proyectores.

Notas

- Si está montado el objetivo VPLL-3050, VPLL-2009, VPLL-2014 o VPLL-2075, no se pueden apilar los proyectores.
- Por motivos de seguridad y mantenimiento, instale los proyectores separados de la pared. Deje un espacio mínimo de 30 cm (11 7/8 pulgadas) a ambos lados y de 70 cm (27 5/8 pulgadas) en la parte posterior.

Para obtener información más detallada sobre la instalación del soporte para proyector SU-PJ2000, consulte el manual de instalación suministrado con el soporte SU-PJ2000.

Nota sobre el apilamiento

Para alinear correctamente las imágenes de ambos proyectores, coloque el zoom en la posición central de la gama de ajustes.

1. Instale el proyector según el valor “a” indicado en el ejemplo.
2. Utilice el zoom para alinear las imágenes de ambos proyectores de forma que cubran completamente la pantalla.

Installieren von Projektoren mit dem Projektorständer SU-PJ2000

Deutsch

Geeignete Projektionsschirmgrößen beim Stapeln von Projektoren

Wenn Sie das Objektiv VPLL-Z3020, VPLL-Z2019, VPLL-Z2025 bzw. VPLL-Z2039 (nicht mitgeliefert) anbringen, sind für die Doppelprojektion 80- bis 500-Zoll-Projektionsschirme und für die Dreifachprojektion 100- bis 500-Zoll-Projektionsschirme erhältlich.

Hinweise

- Bei den zusätzlich erhältlichen Objektiven VPLL-3050, VPLL-2009, VPLL-2014 und VPLL-2075 ist eine Stapelinstallation nicht möglich.
- Aus Sicherheitsgründen und zu Wartungszwecken installieren Sie die Projektoren bitte nicht zu nah an einer Wand. Achten Sie darauf, daß an den Seiten mindestens 30 cm und an der Rückseite mindestens 70 cm Platz bleiben.

Erläuterungen zur Installation mit dem Projektorständer SU-PJ2000 finden Sie in der mit dem Ständer gelieferten Installationsanleitung.

Hinweis zur Doppelprojektion

Damit die Bilder der beiden Projektoren einander genau überlagern, stellen Sie den Zoom auf die Mitte des Einstellbereichs ein.

1. Stellen Sie die Projektoren so auf, wie durch den Wert “a” im Beispiel unten angegeben.
2. Stellen Sie den Zoom so ein, daß die Bilder der beiden Projektoren den ganzen Projektionsschirm füllen.

Installazione dei proiettori utilizzando il supporto del proiettore SU-PJ2000

Italiano

Dimensioni dello schermo disponibili per l’impilazione

Quando viene applicato l’obiettivo VPLL-Z3020, VPLL-Z2019, VPLL-Z2025 e VPLL-Z2039 (non in dotazione), sono disponibili schermi da 80 a 500 pollici per l’installazione con impilazione doppia e schermi da 100 a 500 pollici per l’installazione con impilazione tripla.

Note

- Se viene montato l’obiettivo VPLL-3050, VPLL-2009, VPLL-2014 o VPLL-2075, non è possibile eseguire l’installazione impilata.
- Per la sicurezza e la manutenzione, installare i proiettori scostati dal muro. Lasciare uno spazio minimo di 30 cm su entrambi i lati e uno spazio minimo di 70 cm sulla parte posteriore.

Per informazioni dettagliate sull’installazione del supporto del proiettore SU-PJ2000, consultare il manuale di installazione in dotazione con il supporto stesso.

Nota sull’impilazione

Per allineare in modo adeguato le immagini da entrambi i proiettori, impostare lo zoom sul centro della gamma di regolazione.

1. Installare il proiettore seguendo il valore “a” nell’esempio di impilazione.
2. Usare lo zoom per allineare le immagini dal primo e dal secondo proiettore in modo che riempiano lo schermo.

プロジェクタースタンド SU-PJ2000を使用した設置

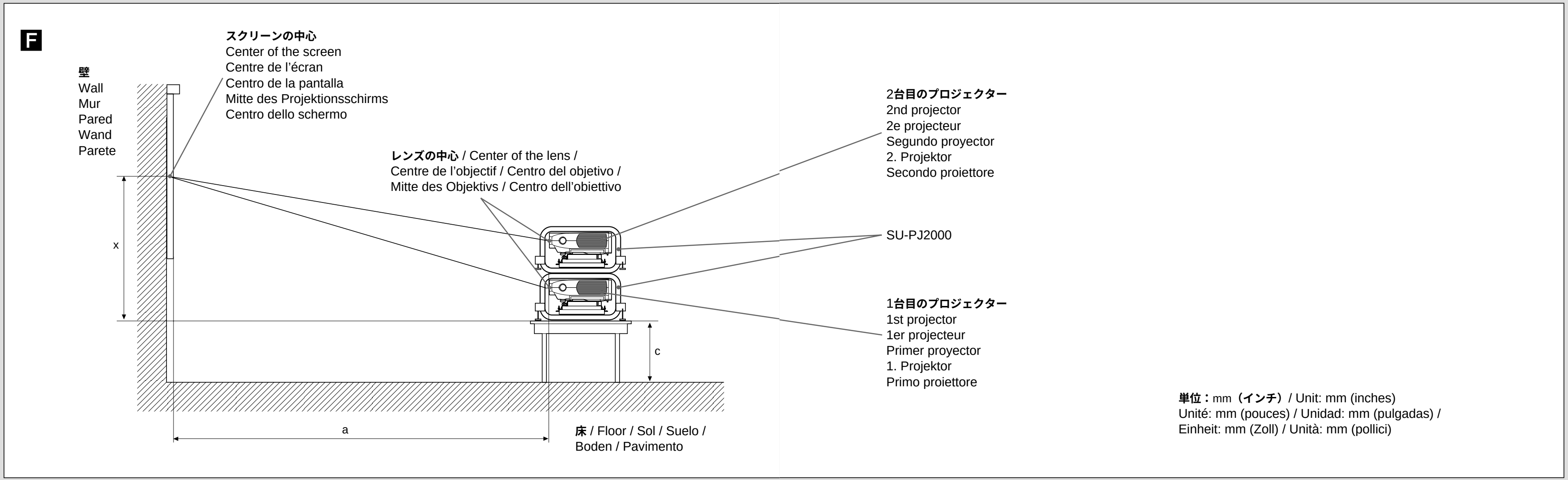
Installing the Projectors Using the SU-PJ2000 Projector Stand

Installation des projecteurs avec le support pour projecteur SU-PJ2000

Instalación de los proyectores utilizando el soporte para proyector SU-PJ2000

Installieren von Projektoren mit dem Projektorständer SU-PJ2000

Installazione dei proiettori utilizzando il supporto del proiettore SU-PJ2000


F
壁
Wall
Mur
Pared
Wand
Parete
スクリーンの中心
Center of the screen
Centre de l'écran
Centro de la pantalla
Mitte des Projektionsschirms
Centro dello schermo
レンズの中心 / Center of the lens /
Centre de l'objectif / Centro del objetivo /
Mitte des Objektivs / Centro dell'obiettivo
2台目のプロジェクター
2nd projector
2e projecteur
Segundo proyector
2. Projektor
Secondo proiettore
SU-PJ2000
1台目のプロジェクター
1st projector
1er projecteur
Primer proyector
1. Projektor
Primo proiettore
x
c
a
床 / Floor / Sol / Suelo /
Boden / Pavimento

単位：mm（インチ）/ Unit: mm (inches)
Unité: mm (pouces) / Unidad: mm (pulgadas) /
Einheit: mm (Zoll) / Unità: mm (pollici)

日本語

床置きツインスタックの場合 F

プロジェクターを机などの上でツインスタックにして設置する場合の設置例を示します。

「5：4表示」の設置寸法については、32、33ページ、「4：3表示」の設置寸法については、34、35ページの表をご覧ください。

イラスト中のアルファベットは、以下の距離を示します。

a：レンズの中心からスクリーンまでの距離

c：床から1台目のプロジェクタースタンドの脚までの距離

x：スクリーンの中心から1台目のプロジェクタースタンドの脚までの距離

English

Floor installation for twin-stacking F

This section describes the examples for installing two projectors on the desk using twin-stacking.

See the charts on pages 32 and 33 concerning the installation measurements for “5:4 display mode,” and on pages 34 and 35 for “4:3 display mode.”

The alphabetical letters in the illustration indicate the distances below.

a : distance between the screen and the center of the lens

c : distance between the floor and the bottom of the 1st projector stand

x : distance between the center of the screen and the bottom of the 1st projector stand

Français

Installation au sol en double empilage F

Cette section décrit des exemples d'installation de deux projecteurs sur un bureau en double superposition.

Reportez-vous aux tableaux des pages 32 à 33 sur les mesures d'installation pour un “mode d'affichage 5:4” et des pages 34 à 35 pour un “mode d'affichage 4:3”.

Les caractères alphabétiques dans l'illustration indiquent les distances ci-dessous.

a : distance entre l'écran et le centre de l'objectif

c : distance entre le sol et la base du support du 1er projecteur

x : distance entre le centre de l'écran et la base du support du 1er projecteur

Español

Instalación en el suelo para apilamiento doble F

En esta sección se muestran ejemplos para instalar dos proyectores sobre una mesa utilizando apilamiento doble.

Consulte las tablas de las páginas 32 a 33 en relación con las medidas de instalación para el “formato 5:4”, y las páginas 34 a 35 para el “formato 4:3”.

Las letras alfabéticas de la ilustración indican las distancias mostradas a continuación.

a : distancia de la pantalla al centro del objetivo

c : distancia del suelo a la parte inferior del soporte del primer proyector

x : distancia del centro de la pantalla a la parte inferior del soporte del primer proyector

Deutsch

Installation am Boden für die Doppelprojektion F

In diesem Abschnitt finden Sie Beispiele für das Installieren von zwei Projektoren auf einem Tisch für die Doppelprojektion.

In den Tabellen auf Seite 32 bis 33 finden Sie die Installationsabmessungen den “5:4-Anzeigemodus” und auf Seite 34 bis 35 die Abmessungen den “4:3-Anzeigemodus”.

Die Buchstaben in der Abbildung beziehen sich auf die unten beschriebenen Abstände.

a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs

c : Abstand zwischen dem Boden und der Unterseite des 1. Projektorständers

x : Abstand zwischen der Mitte des Projektionsschirms und der Unterseite des 1. Projektorständers

Italiano

Installazione al pavimento per impilazione F

Questa sezione descrive gli esempi di installazione per impilazione di due proiettori su un tavolo, ecc.

Vedere i diagrammi da pagina 32 a pagina 33 relativi alle misure di installazione per “il modo visualizzazione 5:4” e da pagina 34 a pagina 35 per “il modo visualizzazione 4:3”.

Le lettere nell'illustrazione indicano le distanze descritte di seguito.

a : distanza tra lo schermo e il centro dell'obiettivo

c : distanza tra il pavimento e il fondo del supporto del primo proiettore

x : distanza tra il centro dello schermo e il fondo del supporto del primo proiettore

プロジェクタースタンド SU-PJ2000を使用した設置

Installing the Projectors Using the SU-PJ2000 Projector Stand

Installation des projecteurs avec le support pour projecteur SU-PJ2000

5:4

■ VPLL-Z3020

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		3700 (145 3/4)	4640 (182 3/4)	5590 (220 1/8)	7000 (275 5/8)	8420 (331 5/8)	9360 (368 5/8)	11720 (461 1/2)	14080 (554 1/2)	16440 (647 3/8)	18800 (740 1/4)	21160 (833 1/4)	23520 (926 1/8)
c*		35 (1 7/16)	186 (7 3/8)	337 (13 3/8)	564 (22 1/4)	791 (31 1/4)	942 (37 1/8)	1320 (52)	1698 (66 7/8)	2076 (81 3/4)	2454 (96 5/8)	2832 (111 5/8)	3210 (126 1/2)
x	N	570 (22 1/2)											
	M	774 (30 1/2)	910 (35 7/8)	1046 (41 1/4)	1250 (49 1/4)	1454 (57 1/4)	1590 (62 5/8)	1931 (76 1/8)	2271 (89 1/2)	2611 (102 7/8)	2951 (116 1/4)	3291 (129 5/8)	3631 (143)

a = (SS × 85.259/1.807) – 77
c = SS × 0.30 × 25.4 – 569.6
x (M) = (SS/1.807) × 0.96 × 12.8 + 230.4

■ VPLL-Z2025

SS		84	100	120	150	180	200	250	300	350	400	450	500
a		4500 (177 1/4)	5410 (213 1/8)	6550 (258)	8260 (325 1/4)	9970 (392 5/8)	11100 (437 1/8)	13950 (549 3/8)	16800 (661 1/2)	19650 (773 3/4)	22500 (886)	25340 (997 7/8)	28190 (1110)
c*		65 (2 5/8)	186 (7 3/8)	337 (13 3/8)	564 (22 1/4)	791 (31 1/4)	942 (37 1/8)	1320 (52)	1698 (66 7/8)	2076 (81 3/4)	2454 (96 5/8)	2832 (111 5/8)	3210 (126 1/2)
x	N	570 (22 1/2)											
	M	802 (31 5/8)	910 (35 7/8)	1046 (41 1/4)	1250 (49 1/4)	1454 (57 1/4)	1590 (62 5/8)	1931 (76 1/8)	2271 (89 1/2)	2611 (102 7/8)	2951 (116 1/4)	3291 (129 5/8)	3631 (143)

a = (SS × 103.332/1.807) – 287
c = SS × 0.30 × 25.4 – 569.6
x (M) = (SS/1.807) × 0.96 × 12.8 + 230.4

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS: スクリーンサイズ対角（インチ）
a ： レンズの中心からスクリーンまでの距離
c ： 床から1台目のプロジェクタースタンドの脚までの距離
x ： スクリーンの中心から1台目のプロジェクタースタンドの脚までの距離
N： 最小値
M： 最大値

* **c値は、水平の床に画像を映り込まなくする　ために必要な最小値です。**

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
c : distance between the floor and the bottom of the 1st projector stand
x : distance between the center of the screen and the bottom of the 1st projector stand
N : minimum
M : maximum

* "c" is the minimum value for the picture not to be projected on the floor.

Français

Les mesures d'installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l'illustration indiquent ce qui suit.
SS : dimension de l'écran en diagonale (pouces)
a : distance entre l'écran et le centre de l'objectif
c : distance entre le sol et la base du support du 1er projecteur
x : distance entre le centre de l'écran et la base du support du 1er projecteur
N : minimum
M : maximum

* "c" est la valeur minimum pour que l'image ne soit pas projetée sur le sol.

Instalación de los proyectores utilizando el soporte para proyector SU-PJ2000

Installieren von Projektoren mit dem Projektorständer SU-PJ2000

Installazione dei proiettori utilizzando il supporto del proiettore SU-PJ2000

5:4

■ VPLL-Z2039

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		84	100	120	150	180	200	250	300	350	400	450	500
a		6900 (271 3/4)	8240 (324 1/2)	9920 (390 5/8)	12440 (489 7/8)	14960 (589 1/8)	16640 (655 1/4)	20850 (821)	25050 (986 3/8)	29250 (1151 3/4)	33450 (1317 1/8)	37650 (1482 1/2)	41850 (1647 7/8)
c*		65 (2 5/8)	186 (7 3/8)	337 (13 3/8)	564 (22 1/4)	791 (31 1/4)	942 (37 1/8)	1320 (52)	1698 (66 7/8)	2076 (81 3/4)	2454 (96 5/8)	2832 (111 5/8)	3210 (126 1/2)
x	N	570 (22 1/2)											
	M	802 (31 5/8)	910 (35 7/8)	1046 (41 1/4)	1250 (49 1/4)	1454 (57 1/4)	1590 (62 5/8)	1931 (76 1/8)	2271 (89 1/2)	2611 (102 7/8)	2951 (116 1/4)	3291 (129 5/8)	3631 (143)

a = (SS × 152.455/1.807) – 163
c = SS × 0.30 × 25.4 – 569.6
x (M) = (SS/1.807) × 0.96 × 12.8 + 230.4

■ VPLL-Z2019

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		3560 (140 1/4)	4460 (175 5/8)	5370 (211 1/2)	6730 (265)	8090 (318 5/8)	9000 (354 3/8)	11270 (443 7/8)	13540 (533 1/4)	15810 (622 5/8)	18080 (712)	20350 (801 3/8)	22620 (890 3/4)
c*		35 (1 7/16)	186 (7 3/8)	337 (13 3/8)	564 (22 1/4)	791 (31 1/4)	942 (37 1/8)	1320 (52)	1698 (66 7/8)	2076 (81 3/4)	2454 (96 5/8)	2832 (111 5/8)	3210 (126 1/2)
x	N	570 (22 1/2)											
	M	774 (30 1/2)	910 (35 7/8)	1046 (41 1/4)	1250 (49 1/4)	1454 (57 1/4)	1590 (62 5/8)	1931 (76 1/8)	2271 (89 1/2)	2611 (102 7/8)	2951 (116 1/4)	3291 (129 5/8)	3631 (143)

a = (SS × 82.346/1.807) – 76
c = SS × 0.30 × 25.4 – 569.6
x (M) = (SS/1.807) × 0.96 × 12.8 + 230.4

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia de la pantalla al centro del objetivo
c : distancia del suelo a la parte inferior del soporte del primer proyector
x : distancia del centro de la pantalla a la parte inferior del soporte del primer proyector
N : mínimo
M : máximo

* "c" es el valor mínimo para que la imagen no se proyecte en el suelo.

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite des 1. Projektorständers
x : Abstand zwischen der Mitte des Projektionsschirms und der Unterseite des 1. Projektorständers
N : Mindestens
M : Höchstens

* "c" ist der Mindestwert, damit die Bilder nicht auf den Boden projiziert werden.

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza tra lo schermo e il centro dell'obiettivo
c : distanza tra il pavimento e il fondo del supporto del primo proiettore
x : distanza tra il centro dello schermo e il fondo del supporto del primo proiettore
N : Minima
M : Massima

* "c" è il valore minimo necessario affinché l'immagine non venga proiettata sul pavimento.

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4:3

単位：mm（**インチ**）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z3020

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		3860 (152)	4840 (190 5/8)	5820 (229 1/4)	7300 (287 1/2)	8770 (345 3/8)	9750 (384)	12210 (480 7/8)	14670 (577 3/4)	17130 (674 1/2)	19580 (771)	22040 (867 7/8)	24500 (964 3/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	N	570 (22 1/2)											
	M	820 (32 3/8)	968 (38 1/8)	1115 (44)	1336 (52 5/8)	1557 (61 3/8)	1705 (67 1/4)	2073 (81 5/8)	2442 (96 1/4)	2810 (110 3/4)	3179 (125 1/4)	3547 (139 3/4)	3916 (154 1/4)

a = (SS × 88.812/1.764) – 77
c = SS × 0.30 × 25.4 – 569.6
x (M) = (SS/1.764) × 13.0 + 230.6

■ VPLL-Z2025

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		4460 (175 5/8)	5650 (222 1/2)	6830 (269)	8610 (339 1/8)	10390 (409 1/8)	11580 (456)	14550 (573)	17510 (689 1/2)	20480 (806 1/2)	23450 (923 3/8)	26410 (1040)	29380 (1156 7/8)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	N	570 (22 1/2)											
	M	820 (32 3/8)	968 (38 1/8)	1115 (44)	1336 (52 5/8)	1557 (61 3/8)	1705 (67 1/4)	2073 (81 5/8)	2442 (96 1/4)	2810 (110 3/4)	3179 (125 1/4)	3547 (139 3/4)	3916 (154 1/4)

a = (SS × 107.638/1.764) – 287
c = SS × 0.30 × 25.4 – 569.6
x (M) = (SS/1.764) × 13.0 + 230.6

4:3

単位：mm（**インチ**）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z2039

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		6840 (269 3/8)	8590 (338 1/4)	10340 (407 1/4)	12970 (510 3/4)	15590 (613 7/8)	17340 (682 7/8)	21720 (855 1/4)	26100 (1027 3/4)	30470 (1199 7/8)	34850 (1372 1/4)	39230 (1544 3/4)	43610 (1717 1/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	N	570 (22 1/2)											
	M	820 (32 3/8)	968 (38 1/8)	1115 (44)	1336 (52 5/8)	1557 (61 3/8)	1705 (67 1/4)	2073 (81 5/8)	2442 (96 1/4)	2810 (110 3/4)	3179 (125 1/4)	3547 (139 3/4)	3916 (154 1/4)

a = (SS × 158.807/1.764) – 163
c = SS × 0.30 × 25.4 – 569.6
x (M) = (SS/1.764) × 13.0 + 230.6

■ VPLL-Z2019

SS		80	100	120	150	180	200	250	300	350	400	450	500
a		3710 (146 1/8)	4650 (183 1/8)	5600 (220 1/2)	7020 (276 7/16)	8430 (332)	9380 (369 3/8)	11740 (462 3/8)	14110 (555 5/8)	16470 (648 5/8)	18840 (741 7/8)	21200 (834 3/4)	23560 (927 3/4)
c*		40 (1 5/8)	192 (7 5/8)	345 (13 5/8)	573 (22 5/8)	802 (31 5/8)	954 (37 5/8)	1335 (52 5/8)	1716 (67 5/8)	2097 (82 5/8)	2478 (97 5/8)	2859 (112 5/8)	3240 (127 5/8)
x	N	570 (22 1/2)											
	M	820 (32 3/8)	968 (38 1/8)	1115 (44)	1336 (52 5/8)	1557 (61 3/8)	1705 (67 1/4)	2073 (81 5/8)	2442 (96 1/4)	2810 (110 3/4)	3179 (125 1/4)	3547 (139 3/4)	3916 (154 1/4)

a = (SS × 85.777/1.764) – 76
c = SS × 0.30 × 25.4 – 569.6
x (M) = (SS/1.764) × 13.0 + 230.6

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS: スクリーンサイズ対角（インチ）
a ： レンズの中心からスクリーンまでの距離
c ： 床から1台目のプロジェクタースタンドの脚までの距離
x ： スクリーンの中心から1台目のプロジェクタースタンドの脚までの距離
N： 最小値
M： 最大値

＊c値は、水平の床に画像を映り込まなくするために必要な最小値です。

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
c : distance between the floor and the bottom of the 1st projector stand
x : distance between the center of the screen and the bottom of the 1st projector stand
N : minimum
M : maximum

* “c” is the minimum value for the picture not to be projected on the floor.

Français

Les mesures d’installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l’illustration indiquent ce qui suit.
SS : dimension de l’écran en diagonale (pouces)
a : distance entre l’écran et le centre de l’objectif
c : distance entre le sol et la base du support du 1er projecteur
x : distance entre le centre de l’écran et la base du support du 1er projecteur
N : minimum
M : maximum

* “c” est la valeur minimum pour que l’image ne soit pas projetée sur le sol.

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia de la pantalla al centro del objetivo
c : distancia del suelo a la parte inferior del soporte del primer proyector
x : distancia del centro de la pantalla a la parte inferior del soporte del primer proyector
N : mínimo
M : máximo

* “c” es el valor mínimo para que la imagen no se proyecte en el suelo.

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite des 1. Projektorständers
x : Abstand zwischen der Mitte des Projektionsschirms und der Unterseite des 1. Projektorständers
N : Mindestens
M : Höchstens

* “c” ist der Mindestwert, damit die Bilder nicht auf den Boden projiziert werden.

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza tra lo schermo e il centro dell’obiettivo
c : distanza tra il pavimento e il fondo del supporto del primo proiettore
x : distanza tra il centro dello schermo e il fondo del supporto del primo proiettore
N : Minima
M : Massima

* “c” è il valore minimo necessario affinché l’immagine non venga proiettata sul pavimento.

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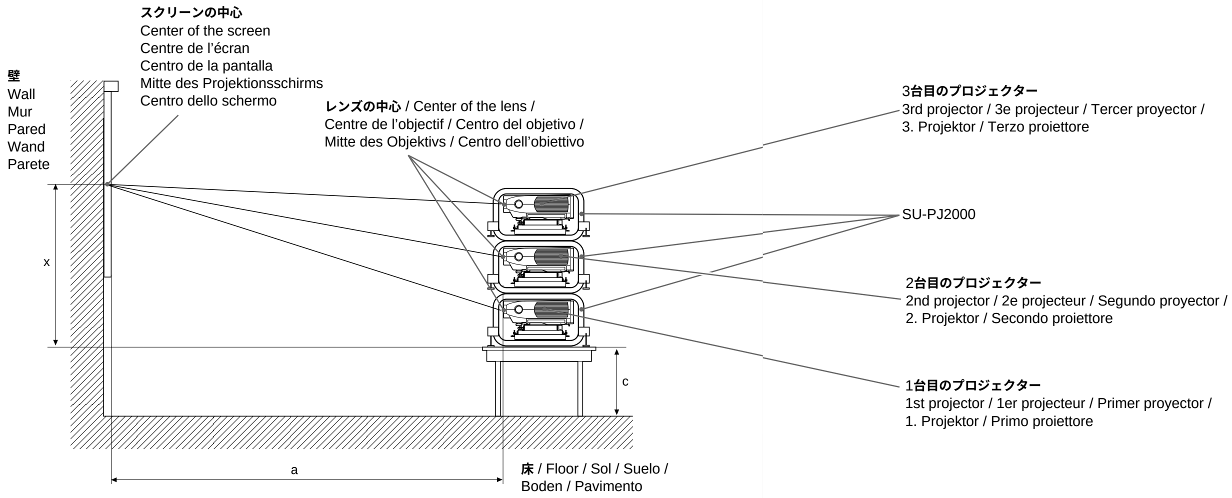
G


スクリーンの中心
Center of the screen
Centre de l’écran
Centro de la pantalla
Mitte des Projektionsschirms
Centro dello schermo
壁
Wall
Mur
Pared
Wand
Parete
レンズの中心 / Center of the lens /
Centre de l’objectif / Centro del objetivo /
Mitte des Objektivs / Centro dell’obiettivo
3台目のプロジェクター
3rd projector / 3e projecteur / Tercer proyector /
3. Projektor / Terzo proiettore
SU-PJ2000
2台目のプロジェクター
2nd projector / 2e projecteur / Segundo proyector /
2. Projektor / Secondo proiettore
1台目のプロジェクター
1st projector / 1er projecteur / Primer proyector /
1. Projektor / Primo proiettore
x
c
a
床 / Floor / Sol / Suelo /
Boden / Pavimento

単位：mm（インチ）/ Unit: mm (inches)
Unité: mm (pouces) / Unidad: mm (pulgadas) /
Einheit: mm (Zoll) / Unità: mm (pollici)

日本語

床置きトリプルスタックの場合 G

プロジェクターを机などの上でトリプルスタックして設置する場合の設置例を示します。

「5：4表示」の設置寸法については、38、39ページ、「4：3表示」の設置寸法については、40、41ページの表をご覧ください。

イラスト中のアルファベットは、以下の距離を示します。
a：レンズの中心からスクリーンまでの距離
c：床から1台目のプロジェクタースタンドの脚までの距離
x：スクリーンの中心から1台目のプロジェクタースタンドの脚までの距離

English

Floor installation for triple-stacking G

This section describes the examples for installing three projectors on the desk using triple-stacking.

See the charts on pages 38 and 39 concerning the installation measurements for “5:4 display mode,” and on pages 40 and 41 for “4:3 display mode.”

The alphabetical letters in the illustration indicate the distances below.
a : distance between the screen and the center of the lens
c : distance between the floor and the bottom of the 1st projector stand
x : distance between the center of the screen and the bottom of the 1st projector stand

Français

Installation au sol en triple superposition G

Cette section décrit des exemples d’installation de trois projecteurs sur un bureau en triple superposition.

Reportez-vous aux tableaux des pages 38 à 39 sur les mesures d’installation pour un “mode d’affichage 5:4” et des pages 40 à 41 pour un “mode d’affichage 4:3”.

Les caractères alphabétiques dans l'illustration indiquent les distances ci-dessous.
a : distance entre l’écran et le centre de l’objectif
c : distance entre le sol et la base du support du 1er projecteur
x : distance entre le centre de l’écran et la base du support du 1er projecteur

Español

Instalación de apilamiento triple en el suelo G

En esta sección se muestran ejemplos para instalar tres proyectores sobre una mesa utilizando apilamiento triple.

Consulte las tablas de las páginas 38 a 39 en relación con las medidas de instalación para el “formato 5:4”, y las páginas 40 a 41 para el “formato 4:3”.

Las letras alfabéticas de la ilustración indican las distancias mostradas a continuación.
a : distancia de la pantalla al centro del objetivo
c : distancia del suelo a la parte inferior del soporte del primer proyector
x : distancia del centro de la pantalla a la parte inferior del soporte del primer proyector

Deutsch

Installation am Boden für die Dreifachprojektion G

In diesem Abschnitt finden Sie Beispiele für das Installieren von drei Projektoren auf einem Tisch für die Dreifachprojektion.

In den Tabellen auf Seite 38 bis 39 finden Sie die Installationsabmessungen den “5:4-Anzeigemodus” und auf Seite 40 bis 41 die Abmessungen den “4:3-Anzeigemodus”.

Die Buchstaben in der Abbildung beziehen sich auf die unten beschriebenen Abstände.
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite des 1. Projektorständers
x : Abstand zwischen der Mitte des Projektionsschirms und der Unterseite des 1. Projektorständers

Italiano

Installazione al pavimento per impilazione tripla G

Questa sezione descrive gli esempi di installazione per impilazione di tre proiettori su un tavolo, ecc.

Vedere i diagrammi da pagina 38 a pagina 39 relativi alle misure di installazione per “il modo visualizzazione 5:4” e da pagina 40 a pagina 41 per “il modo visualizzazione 4:3”.

Le lettere nell’illustrazione indicano le distanze descritte di seguito.
a : distanza tra lo schermo e il centro dell’obiettivo
c : distanza tra il pavimento e il fondo del supporto del primo proiettore
x : distanza tra il centro dello schermo e il fondo del supporto del primo proiettore

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5:4

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z3020

SS		110	120	150	180	200	250	300	350	400	450	500
a		5113 (201 3/8)	5590 (220 1/8)	7000 (275 5/8)	8420 (331 5/8)	9360 (368 5/8)	11720 (461 1/2)	14080 (554 1/2)	16440 (647 3/8)	18800 (740 1/4)	21160 (833 1/4)	23520 (926 1/8)
c*		0 (0)	0 (0)	212 (8 3/8)	439 (17 3/8)	590 (23 1/4)	968 (38 1/8)	1346 (53)	1724 (68)	2102 (82 7/8)	2480 (97 3/4)	2858 (112 5/8)
x	N	922 (36 3/8)										
	M	978 (38 5/8)	1046 (41 1/4)	1250 (49 1/4)	1454 (57 1/4)	1590 (62 5/8)	1931 (76 1/8)	2271 (89 1/2)	2611 (102 7/8)	2951 (116 1/4)	3291 (129 5/8)	3631 (143)

a = (SS × 85.259/1.807) – 77
c = SS × 0.30 × 25.4 – 921.6
x (M) = (SS/1.807) × 0.96 × 12.8 + 230.4

■ VPLL-Z2025

SS		110	120	150	180	200	250	300	350	400	450	500
a		6004 (236 13/32)	6550 (258)	8260 (325 1/4)	9970 (392 5/8)	11100 (437 1/8)	13950 (549 3/8)	16800 (661 1/2)	19650 (773 3/4)	22500 (886)	25340 (997 7/8)	28190 (1110)
c*		0 (0)	23 (29/32)	260 (10 1/4)	496 (19 5/8)	653 (25 3/4)	1047 (41 1/4)	1441 (56 3/4)	1834 (72 1/4)	2228 (87 3/4)	2622 (103 1/4)	3015 (118 23/32)
x	N	922 (36 3/8)										
	M	978 (38 5/8)	1046 (41 1/4)	1250 (49 1/4)	1454 (57 1/4)	1590 (62 5/8)	1931 (76 1/8)	2271 (89 1/2)	2611 (102 7/8)	2951 (116 1/4)	3291 (129 5/8)	3631 (143)

a = (SS × 103.332/1.807) – 287
c = SS × 0.30 × 25.4 – 921.6
x (M) = (SS/1.807) × 0.96 × 12.8 + 230.4

5:4

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z2039

SS		110	120	150	180	200	250	300	350	400	450	500
a		9118 (359 1/8)	9920 (390 5/8)	12440 (489 7/8)	14960 (589 1/8)	16640 (655 1/4)	20850 (821)	25050 (986 3/8)	29250 (1151 3/4)	33450 (1317 1/8)	37650 (1482 1/2)	41850 (1647 7/8)
c*		0 (0)	0 (0)	212 (8 3/8)	439 (17 3/8)	590 (23 1/4)	968 (38 1/8)	1346 (53)	1724 (68)	2102 (82 7/8)	2480 (97 3/4)	2858 (112 5/8)
x	N	922 (36 3/8)										
	M	978 (38 5/8)	1046 (41 1/4)	1250 (49 1/4)	1454 (57 1/4)	1590 (62 5/8)	1931 (76 1/8)	2271 (89 1/2)	2611 (102 7/8)	2951 (116 1/4)	3291 (129 5/8)	3631 (143)

a = (SS × 152.455/1.807) – 163
c = SS × 0.30 × 25.4 – 921.6
x (M) = (SS/1.807) × 0.96 × 12.8 + 230.4

■ VPLL-Z2019

SS		110	120	150	180	200	250	300	350	400	450	500
a		4937 (194 1/2)	5370 (211 1/2)	6730 (265)	8090 (318 5/8)	9000 (354 3/8)	11270 (443 7/8)	13540 (533 1/4)	15810 (622 5/8)	18080 (712)	20350 (801 3/8)	22620 (890 3/4)
c*		0 (0)	0 (0)	212 (8 3/8)	439 (17 3/8)	590 (23 1/4)	968 (38 1/8)	1346 (53)	1724 (68)	2102 (82 7/8)	2480 (97 3/4)	2858 (112 5/8)
x	N	922 (36 3/8)										
	M	978 (38 5/8)	1046 (41 1/4)	1250 (49 1/4)	1454 (57 1/4)	1590 (62 5/8)	1931 (76 1/8)	2271 (89 1/2)	2611 (102 7/8)	2951 (116 1/4)	3291 (129 5/8)	3631 (143)

a = (SS × 82.346/1.807) – 76
c = SS × 0.30 × 25.4 – 921.6
x (M) = (SS/1.807) × 0.96 × 12.8 + 230.4

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS: スクリーンサイズ対角（インチ）
a : レンズの中心からスクリーンまでの距離
c : 床から1台目のプロジェクタースタンドの脚までの距離
x : スクリーンの中心から1台目のプロジェクタースタンドの脚までの距離
N : 最小値
M : 最大値

* **c値は、水平の床に画像を映り込まなくするために必要な最小値です。**

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
c : distance between the floor and the bottom of the 1st projector stand
x : distance between the center of the screen and the bottom of the 1st projector stand
N : minimum
M : maximum

* “c” is the minimum value for the picture not to be projected on the floor.

Français

Les mesures d’installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l’illustration indiquent ce qui suit.
SS : dimension de l’écran en diagonale (pouces)
a : distance entre l’écran et le centre de l’objectif
c : distance entre le sol et la base du support du 1er projecteur
x : distance entre le centre de l’écran et la base du support du 1er projecteur
N : minimum
M : maximum

* “c” est la valeur minimum pour que l’image ne soit pas projetée sur le sol.

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia de la pantalla al centro del objetivo
c : distancia del suelo a la parte inferior del soporte del primer proyector
x : distancia del centro de la pantalla a la parte inferior del soporte del primer proyector
N : mínimo
M : máximo

* “c” es el valor mínimo para que la imagen no se proyecte en el suelo.

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite des 1. Projektorständers
x : Abstand zwischen der Mitte des Projektionsschirms und der Unterseite des 1. Projektorständers
N : Mindestens
M : Höchstens

* “c” ist der Mindestwert, damit die Bilder nicht auf den Boden projiziert werden.

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza tra lo schermo e il centro dell’obiettivo
c : distanza tra il pavimento e il fondo del supporto del primo proiettore
x : distanza tra il centro dello schermo e il fondo del supporto del primo proiettore
N : Minima
M : Massima

* “c” è il valore minimo necessario affinché l’immagine non venga proiettata sul pavimento.

プロジェクタースタンド SU-PJ2000を使用した設置

Installing the Projectors Using the SU-PJ2000 Projector Stand

Installation des projecteurs avec le support pour projecteur SU-PJ2000

4:3

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z3020

SS		100	120	150	180	200	250	300	350	400	450	500
a		4840 (190 5/8)	5820 (229 1/4)	7300 (287 1/2)	8770 (345 3/8)	9750 (384)	12210 (480 7/8)	14670 (577 3/4)	17130 (674 1/2)	19580 (771)	22040 (867 7/8)	24500 (964 3/4)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	N	922 (36 3/8)										
	M	968 (38 1/8)	1115 (44)	1336 (52 5/8)	1557 (61 3/8)	1705 (67 1/4)	2073 (81 5/8)	2442 (96 1/4)	2810 (110 3/4)	3179 (125 1/4)	3547 (139 3/4)	3916 (154 1/4)

a = (SS × 88.812/1.764) – 77
c = SS × 0.30 × 25.4 – 921.6
x (M) = (SS/1.764) × 13.0 + 230.6

■ VPLL-Z2025

SS		100	120	150	180	200	250	300	350	400	450	500
a		5650 (222 1/2)	6830 (269)	8610 (339 1/8)	10390 (409 1/8)	11580 (456)	14550 (573)	17510 (689 1/2)	20480 (806 1/2)	23450 (923 3/8)	26410 (1040)	29380 (1156 7/8)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	N	922 (36 3/8)										
	M	968 (38 1/8)	1115 (44)	1336 (52 5/8)	1557 (61 3/8)	1705 (67 1/4)	2073 (81 5/8)	2442 (96 1/4)	2810 (110 3/4)	3179 (125 1/4)	3547 (139 3/4)	3916 (154 1/4)

a = (SS × 107.638/1.764) – 287
c = SS × 0.30 × 25.4 – 921.6
x (M) = (SS/1.764) × 13.0 + 230.6

日本語

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS：スクリーンサイズ対角（インチ）
a ：レンズの中心からスクリーンまでの距離
c ：床から1台目のプロジェクタースタンドの脚までの距離
x ：スクリーンの中心から1台目のプロジェクタースタンドの脚までの距離
N ：最小値
M ：最大値

* **c値は、水平の床に画像を映り込まなくするために必要な最小値です。**

English

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
c : distance between the floor and the bottom of the 1st projector stand
x : distance between the center of the screen and the bottom of the 1st projector stand
N : minimum
M : maximum

* "c" is the minimum value for the picture not to be projected on the floor.

Français

Les mesures d'installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l'illustration indiquent ce qui suit.
SS : dimension de l'écran en diagonale (pouces)
a : distance entre l'écran et le centre de l'objectif
c : distance entre le sol et la base du support du 1er projecteur
x : distance entre le centre de l'écran et la base du support du 1er projecteur
N : minimum
M : maximum

* "c" est la valeur minimum pour que l'image ne soit pas projetée sur le sol.

Instalación de los proyectores utilizando el soporte para proyector SU-PJ2000

Installieren von Projektoren mit dem Projektorständer SU-PJ2000

Installazione dei proiettori utilizzando il supporto del proiettore SU-PJ2000

4:3

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

■ VPLL-Z2039

SS		100	120	150	180	200	250	300	350	400	450	500
a		8590 (338 1/4)	10340 (407 1/4)	12970 (510 3/4)	15590 (613 7/8)	17340 (682 7/8)	21720 (855 1/4)	26100 (1027 3/4)	30470 (1199 7/8)	34850 (1372 1/4)	39230 (1544 3/4)	43610 (1717 1/4)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	N	922 (36 3/8)										
	M	968 (38 1/8)	1115 (44)	1336 (52 5/8)	1557 (61 3/8)	1705 (67 1/4)	2073 (81 5/8)	2442 (96 1/4)	2810 (110 3/4)	3179 (125 1/4)	3547 (139 3/4)	3916 (154 1/4)

a = (SS × 158.807/1.764) – 163
c = SS × 0.30 × 25.4 – 921.6
x (M) = (SS/1.764) × 13.0 + 230.6

■ VPLL-Z2019

SS		100	120	150	180	200	250	300	350	400	450	500
a		4650 (183 1/8)	5600 (220 1/2)	7020 (276 7/16)	8430 (332)	9380 (369 3/8)	11740 (462 3/8)	14110 (555 5/8)	16470 (648 5/8)	18840 (741 7/8)	21200 (834 3/4)	23560 (927 3/4)
c*		0 (0)	0 (0)	221 (8 3/4)	450 (17 3/4)	602 (23 3/4)	983 (38 3/4)	1364 (53 3/4)	1745 (68 3/4)	2126 (83 3/4)	2507 (98 3/4)	2888 (113 3/4)
x	N	922 (36 3/8)										
	M	968 (38 1/8)	1115 (44)	1336 (52 5/8)	1557 (61 3/8)	1705 (67 1/4)	2073 (81 5/8)	2442 (96 1/4)	2810 (110 3/4)	3179 (125 1/4)	3547 (139 3/4)	3916 (154 1/4)

a = (SS × 85.777/1.764) – 76
c = SS × 0.30 × 25.4 – 921.6
x (M) = (SS/1.764) × 13.0 + 230.6

Español

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia de la pantalla al centro del objetivo
c : distancia del suelo a la parte inferior del soporte del primer proyector
x : distancia del centro de la pantalla a la parte inferior del soporte del primer proyector
N : mínimo
M : máximo

* "c" es el valor mínimo para que la imagen no se proyecte en el suelo.

Deutsch

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite des 1. Projektorständers
x : Abstand zwischen der Mitte des Projektionsschirms und der Unterseite des 1. Projektorständers
N : Mindestens
M : Höchstens

* "c" ist der Mindestwert, damit die Bilder nicht auf den Boden projiziert werden.

Italiano

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza tra lo schermo e il centro dell'obiettivo
c : distanza tra il pavimento e il fondo del supporto del primo proiettore
x : distanza tra il centro dello schermo e il fondo del supporto del primo proiettore
N : Minima
M : Massima

* "c" è il valore minimo necessario affinché l'immagine non venga proiettata sul pavimento.

寸法図

日本語

設置およびメンテナンスに必要なスペース

プロジェクターのアフターケアのためには、本体の周りにスペースが必要です。42～45ページの寸法図を参照して、このスペースを確保して設置してください。また、通風口（排気口、吸気口）の周囲には充分な空間を確保し、通風口（排気口、吸気口）をふさがないようにしてください。

本体の周りに必要なスペース
前面：約50cm
後面：約30cm
側面：約30cm

Dimensions

English

Necessary Clearance for Installation and Maintenance

Make sure to provide enough room for maintenance service. Install the projector, making reference to the dimensions shown on peges 42 to 45. Also, there should be an enough space around the exhaust and intake holes without blocking them.

A space required around the unit is as follows:
Front: about 50 cm (19 $^{11}/_{16}$ inches)
Rear: about 30 cm (11 $^{13}/_{16}$ inches)
Side: about 30 cm (11 $^{13}/_{16}$ inches)

Dimensions

Français

Espace nécessaire pour l’installation et l’entretien

Veillez à assurer un espace suffisant pour l’entretien du projecteur. Installez le projecteur en vous référant aux dimensions indiquées aux pages 42 à 45. De même, il y a lieu d’assurer un espace suffisant autour des orifices d’évacuation et de prise d’air.

L’espace requis autour de l’appareil est le suivant:
avant: environ 50 cm (19 $^{11}/_{16}$ pouces)
arrière: environ 30 cm (11 $^{13}/_{16}$ pouces)
côté: environ 30 cm (11 $^{13}/_{16}$ pouces)

Dimensiones

Español

Espacio necesario para la instalación y el mantenimiento

Asegúrese de dejar suficiente espacio para realizar el servicio de mantenimiento. Instale el proyector consultando las dimensiones mostradas en las páginas 42 a 45. Igualmente, debe haber espacio suficiente alrededor de los orificios de exhaustación y de aspiración con el fin de no bloquearlos.

El espacio necesario alrededor de la unidad es el siguiente:
parte frontal: aproximadamente 50 cm (19 $^{11}/_{16}$ pulgadas)
parte posterior: aproximadamente 30 cm (11 $^{13}/_{16}$ pulgadas)
parte lateral: aproximadamente 30 cm (11 $^{13}/_{16}$ pulgadas)

Abmessungen

Deutsch

Installations- und Wartungsabstand

Achten Sie bei der Installation darauf, genug Platz für Wartungsarbeiten zu lassen. Richten Sie sich bitte nach den auf Seite 42 bis 45 angegebenen Maßen. Achten Sie ebenfalls darauf, genügend Platz um die Ansaug- und Auslaßöffnungen zu lassen, so daß diese nicht blockiert werden.

Folgende Abstände sind um das Gerät erforderlich:
Vorn: ca. 50 cm
Hinten: ca. 30 cm
Seite: ca. 30 cm

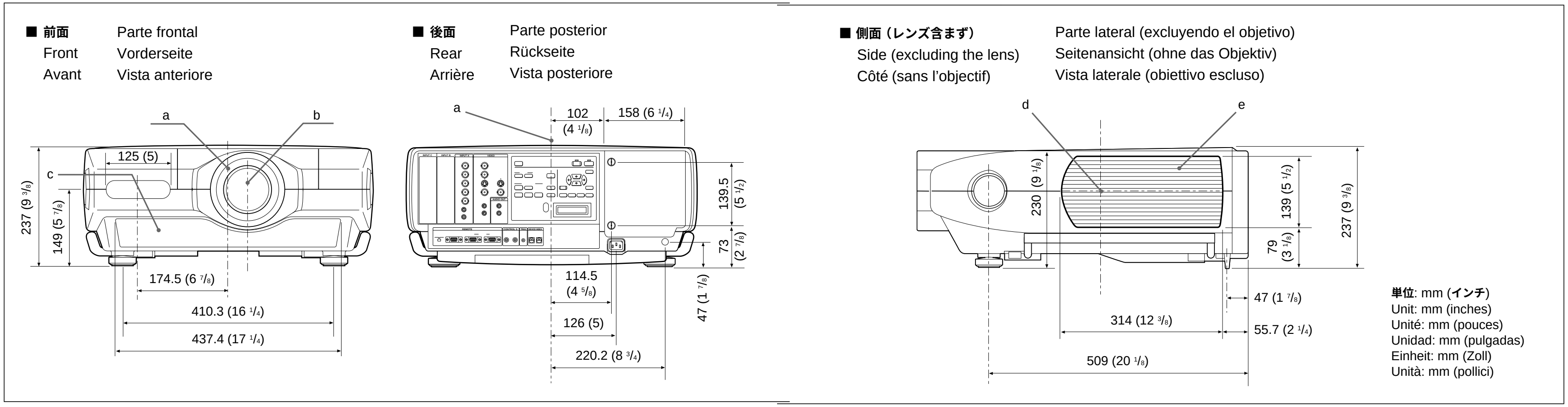
Dimensioni

Italiano

Spazio necessario per l’installazione e la manutenzione

Accertarsi che vi sia spazio sufficiente per il servizio di manutenzione. Installare il proiettore facendo riferimento alle misure riportate alle pagine da 42 a 45. Inoltre, occorre lasciare spazio sufficiente intorno alle prese di aspirazione e di scarico dell’aria evitando di ostruirle.

Lo spazio necessario intorno all’apparecchio è il seguente:
anteriore: circa 50 cm
posteriore: circa 30 cm
laterale: circa 30 cm


■ **前面**
Front
Avant
Parte frontal
Vorderseite
Vista anteriore

■ **後面**
Rear
Arrière
Parte posterior
Rückseite
Vista posteriore

■ **側面（レンズ含まず）**
Side (excluding the lens)
Côté (sans l’objectif)
Parte lateral (excluyendo el objetivo)
Seitenansicht (ohne das Objektiv)
Vista laterale (obiettivo escluso)

単位: mm (**インチ**)
Unit: mm (inches)
Unité: mm (pouces)
Unidad: mm (pulgadas)
Einheit: mm (Zoll)
Unità: mm (pollici)

a: **本体の中心**
b: **レンズの中心**
c: **吸気口**
d: **重心**
e: **吸気口（左側面：排気口）**

a: Center of the projector
b: Center of the lens
c: Ventilation hole (intake)
d: Center of projection balance
e: Ventilation hole (left side: exhaust)

a: Centre du projecteur
b: Centre de l’objectif
c: Orifices de ventilation (prise d’air)
d: Centre de projection
e: Orifice de ventilation (côté gauche: sortie d’air)

a: Centro del proyector
b: Centro del objetivo
c: Orificio de ventilación (aspiración)
d: Centro de equilibrio de proyección
e: Orificio de ventilación (lateral izquierdo: exhaustación)

a: Mitte des Projektors
b: Mitte des Objektivs
c: Lüftungsöffnungen (Ansaugöffnungen)
d: Projektionszentrum
e: Lüftungsöffnungen (links: Auslaßöffnungen)

a: Centro del proiettore
b: Centro dell’obiettivo
c: Prese di ventilazione (aspirazione)
d: Centro del bilanciamento della proiezione
e: Prese di ventilazione (lato sinistro: scarico)

寸法図

Dimensions

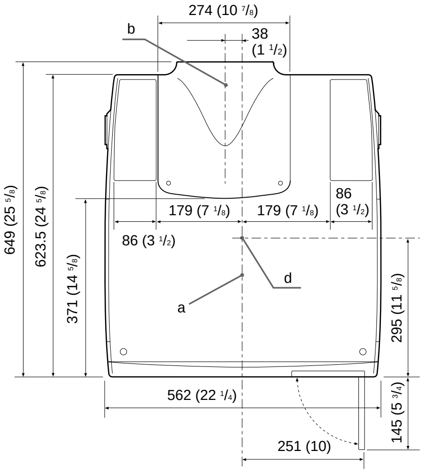
Dimensions

Dimensiones

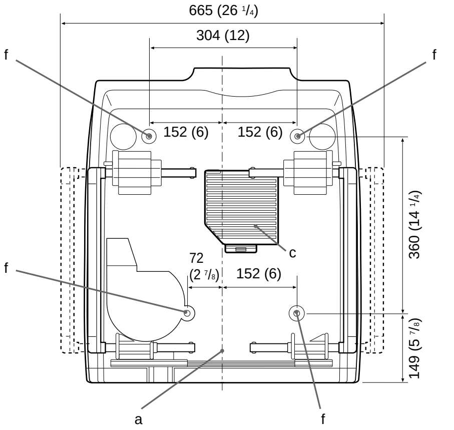
Abmessungen

Dimensioni

■ 上面（レンズ含まず）
Top (excluding the lens)
Dessus (sans l'objectif)
Parte superior (excluyendo el objetivo)
Draufsicht (ohne das Objektiv)
Vista dall'alto (obiettivo escluso)



■ 底面（レンズ含まず）
Bottom (excluding the lens)
Dessous (sans l'objectif)
Parte inferior (excluyendo el objetivo)
Unteransicht (ohne das Objektiv)
Vista del basso (obiettivo escluso)



単位: mm (**インチ**)
Unit: mm (inches)
Unité: mm (pouces)
Unidad: mm (pulgadas)
Einheit: mm (Zoll)
Unità: mm (pollici)

a: **本体の中心**
b: **レンズの中心**
c: **吸気口**
d: **重心**
f: **天井つり用金具穴**

a: Center of the projector
b: Center of the lens
c: Ventilation hole (intake)
d: Center of projection balance
f: Hole for attaching the suspension support

a: Centre du projecteur
b: Centre de l'objectif
c: Orifices de ventilation (prise d'air)
d: Center of projection balance
f: Trou de fixation du support de suspension

a: Centro del proyector
b: Centro del objetivo
c: Orificio de ventilación (aspiración)
d: Centro de equilibrio de proyección
f: Orificio para fijar el soporte de suspensión

a: Mitte des Projektors
b: Mitte des Objektivs
c: Lüftungsöffnungen (Ansaugöffnungen)
d: Projektionszentrum
f: Bohrung für die Montage der Projektoraufhängung

a: Centro del proiettore
b: Centro dell'obiettivo
c: Prese di ventilazione (aspirazione)
d: Centro del bilanciamento della proiezione
f: Foro per l'applicazione del supporto di sospensione

キャビネットの前面からレンズの中心までの寸法

Dimensions from the front of the cabinet to the center of the lens

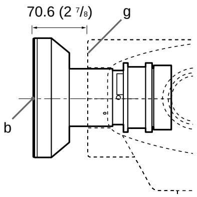
Dimensions entre l'avant du châssis et le centre de l'objectif

Dimensiones desde la parte frontal de la unidad hasta el centro del objetivo

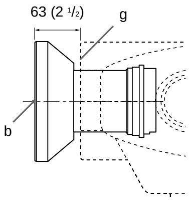
Abmessungen zwischen der Vorderseite des Gehäuses und der Objektivmitte

Dimensioni dalla parte anteriore dell'apparecchio al centro dell'obiettivo

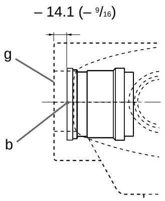
VPLL-2009



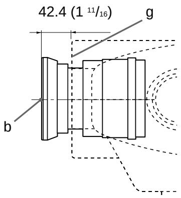
VPLL-2014



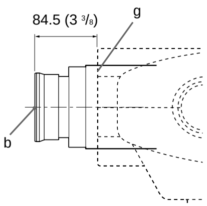
VPLL-Z3020



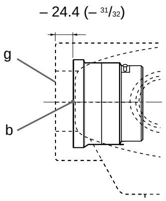
VPLL-Z2025



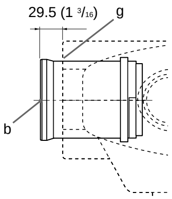
VPLL-Z2039



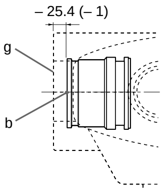
VPLL-3050



VPLL-2075



VPLL-Z2019



単位: mm (**インチ**) / Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

b: **レンズの中心**
g: **キャビネットの前面**

b: Center of the lens
g: Front of the cabinet

b: Centre de l'objectif
g: Avant du châssis

b: Centro del objetivo
g: Frontal de la unidad

b: Mitte des Objektivs
g: Vorderseite des Gehäuses

b: Centro dell'obiettivo
g: Parte anteriore dell'apparecchio

Presentation Viewer Help

Presentation Viewer Help
About Presentation Viewer
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About Presentation Viewer

Presentation Viewer allows you to run a slide showon your projector using a presentation file created with the Microsoft PowerPoint. You can run your slide show with files stored in your projector and a memory card without using a computer. You can also start a slide show by opening files stored in a computer connected to the same LAN (Local Area Network) as the projector.

See also

Displaying Slides

Displaying Slides

Switching between Note View and Slide View
Setting up a slide show
Moving through the slides
Going to a slide by title

Switching between Note View and Slide View

Two views are available; Note View that displays a slide and note, and Slide View for a slide only. You can switch between these views by any of the following ways.

- Click Note View toolbar button to switch to the Note View, and click Slide View toolbar button to switch to the Slide View.
- Click Note View from the View menu to show the NoteView and click Slide View to show the Slide View.
- Right-clicking on each view shows a shortcut menu, then click the other view.

See Also

Setting up a slide show

Setting up a slide show

You can set which slides to include or when to advance to the next slide in a slide show.

Specifying slides to include in a slide show Setting a timing to advance a slide

Specifying slides to include in a slide show

1. Click Set Up Show from the Slide Show menu.
   The Set Up Show dialog box appears.
2. To include all the slides in your slide show, select All.
3. To include only a range of slides you specify, select Slide, then enter the beginning and ending slide numbers in the boxes before and behind To.
4. To run a custom slide show if your presentation contains it, check Custom show and select a custom slide show you want in the Custom show list.

See Also

Setting a timing to advance a slide
Running a slide show

Setting a timing to advance a slide

1. Click Set Up Show from the Slide Show menu. The Set Up Show dialog box appears.
2. To advance the slides according to the preset timings during a slide show, select Using timings, if present.
3. To move through the slides manually by clicking the mouse or by clicking Previous and Next on the shortcut menu, select Manually.
4. To advance the slides automatically using your set timings, select Automatically after and then enter a timing in seconds in the Advance time box.
5. To repeat a slide show automatically until you select End Show on the shortcut menu, select Automatically after (continuously).

See Also

Specifying slides to include in a slide show
Running a slide show

Running a slide show

- Click the Slide Show toolbox button to run a slide show. You can also start it by selecting View Show from the Slide Show menu or by selecting Slide Show from the View menu.
- To advance to the next slide manually during the slide show, click the mouse or select Next on the shortcut menu. To return to the previous slide, select Previous on the shortcut menu.
- To end the slide show, select End Show on the shortcut menu.

See Also

Setting up a slide show
Moving through the slides
Going to a slide by title

Moving through the slides

Moving through the slides is enabled in any ofthe following ways:

- In Note View or Slide View, click the Previous or Next toolbar button.
- While a slide show is running, clicking the mouse advances the slides.
- In any view, selecting Previous on the shortcut menu returns to the previous slide or selecting Next advances to the next slide.

See Also

Setting a timing to advance a slide
Going to a slide by title

Going to a slide by title

- Select Go to... on the shortcut menu, then select the title of the slide you want to show in the slide list.
- In Note View and Slide View, click the slide list box to select the title of a slide from the slide list.

See Also

Moving through the slides

Shortcut Menus

A shortcut menu contains the following commands.
Right-click the mouse to display the shortcut menu on each view.

To While in the Note View	select
Advance to the next slide	Next
Return to the previous slide	Previous
Display a slide selected by its title from the slide list	Go to...
Switch the display to Slide View	Slide View
Run a slide show	View Show

To While in the Slide View	select
Advance to the next slide	Next
Return to the previous slide	Previous
Display a slide selected by its title from the slide list	Go to...
Switch the display to Note View	Note View
Run a slide show	View Show

To While in the Note View	select
Advance to the next slide	Next
Return to the previous slide	Previous
Display a slide selected by its title from the slide list	Go to...
End the slide show	End Show

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About the Presentation Viewer
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Slide show, running
Slide show, setup
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Slides, going to a specific title
Slides, moving through
Slides, setting a timing to advance
Slides, specifying the range
Slides, switching to Note View
Slides, switching to Slide View

4-080-679-11(1)

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SONY®

3-865-453-**01**(1)

Projector Suspension Support

Installation manual for Dealers

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

TÜV Rheinland
BAUART GEPRÜFT
TYPE APPROVED

PSS-2000

© 1998 by Sony Corporation

English

Maximum load: 50 kg (110 lb 6 oz)

The PSS-2000 suspension support is designed for use with Sony LCD Data projectors the VPL-X2000U/E/M.

Caution

- For installation, consult with qualifies Sony personnel.
- The ceiling should be capable of supporting a weight of at least 250 kg (551 lb 2 oz); if not, the ceiling must be reinforced.
- When you attach the bracket directly to the ceiling, use commercially available M10 bolts with nuts and washers, depending on the ceiling. Use of other bolts, nuts, and washers other than M10 may present a danger of falling.
- Be sure to assemble and attach the bracket in the order indicated; otherwise the projector may fall, resulting in grievous bodily injury or even death.
- The PSS-2000 suspension support is designed for use with Sony LCD data projector. Never use it for another purpose.

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Installation Diagram 8
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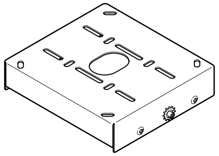
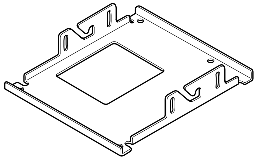
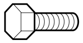
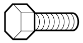
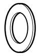
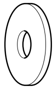
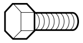
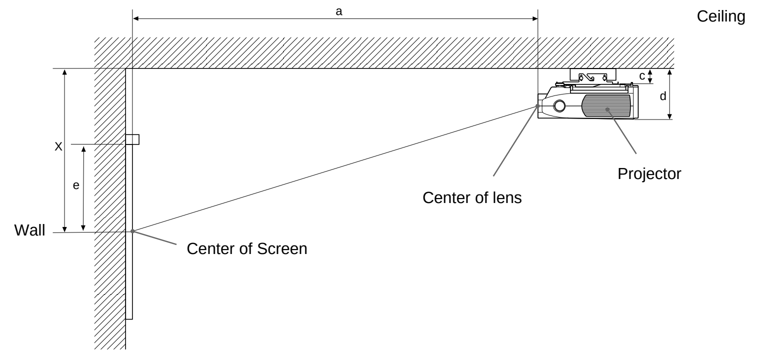
Parts List

(a)	Base box (1)		
(b)	Suspension bracket (1)		
(c)	Bolt M8 × 20 (2)	Parts number 4-047-766-01	
(d)	Bolt M6 × 12 (4)	Parts number 4-056-754-01	
(e)	Washer M8 (2)	Parts number 4-047-748-01	
(f)	Washer M6 (4)	Parts number 4-056-755-01	

(g)	Spacer (2)	Parts number 4-056-753-01	
(h)	Bolt M10 × 25 (4)	Parts number 4-068-372-01	
(i)	Washer M10 (4)	Parts number 4-068-371-01	
(j)	Spring washer M10 (4)	Parts number 4-068-373-01	

Installation Diagram

For details of screen size and installation measurement for projection, refer to the Operating Manual or Installation Manual for Dealers of the projector.



a: Distance between the center of lens and the screen

c: Distance between the ceiling and the mounting surface of the suspension bracket: 104.7 mm (4 $^{1}/_{8}$ inches)

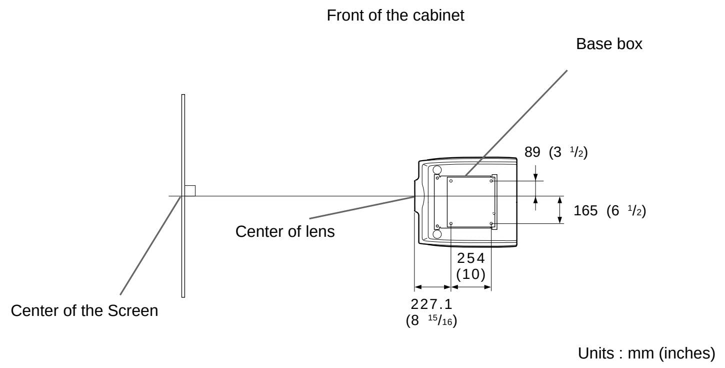
d: Distance between the top of the projector and the ceiling: 330.3 mm (13 inches)

e: Distance from the top edge of available projected picture to the center of screen

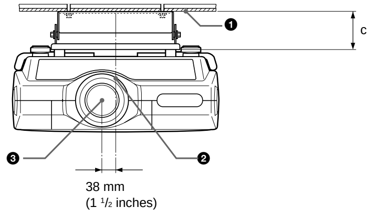
x: Distance between the ceilig and the center of the screen

Installation Diagram

Align the center of the lens with the center of the screen.


Front of the cabinet
Base box
89 (3 1/2)
165 (6 1/2)
Center of lens
254
(10)
227.1
(8 15/16)
Center of the Screen
Units : mm (inches)

The lens is offset 38 mm (1 $^1/_2$ inches) to the left from the center of the projector. When mounting, take care to align the center of the lens with the center of the screen; not the center of the projector.


❶
c
❸
❷
38 mm
(1 1/2 inches)

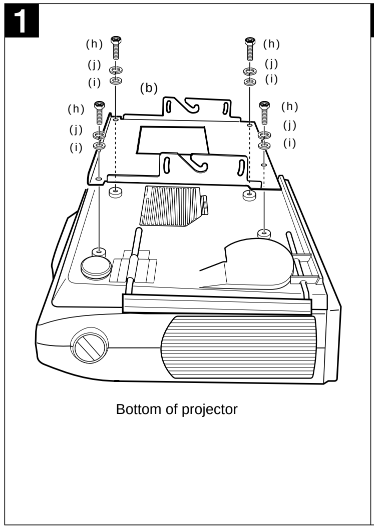
c: Distance between the ceiling and the mounting surface of the suspension bracket: 104.7 mm (4 $^1/_8$ inches)

❶ Ceiling

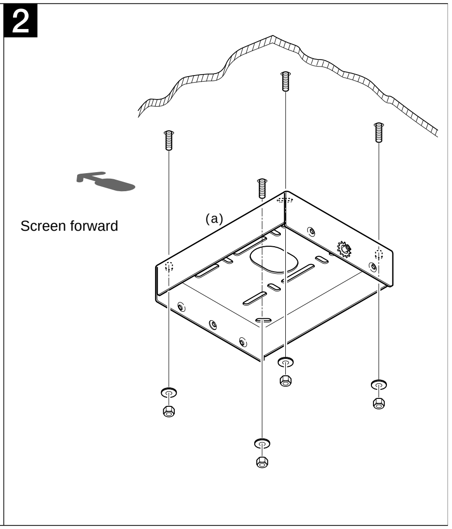
❷ Center of projector

❸ Center of lens

Attaching to the Ceiling



Bottom of projector



English

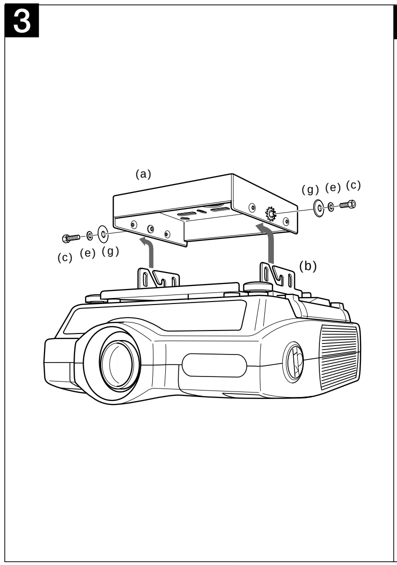
1 Turn the projector upside down and attach the suspension bracket (b).
Use M10 × 25 bolts (h), M10 spring washers (j) and M10 washers (i).

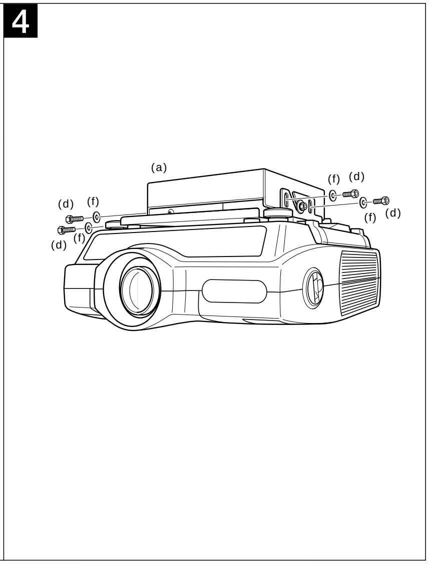
Note

When attaching the bracket, be careful not to overtighten the bolts.

2 Attach the base box (a) to the ceiling.
Use M10 bolts, nuts and washers (not supplied).

Attaching to the ceiling





English

3 Tighten loosely two bolts M8 × 20 (c), washers (e) and spacers (g) to the base box hinge pins (a). Hang the projector with the suspension bracket (b) on the base box hinge pins (two bolts M8 × 20 (c)).

4 Attach four bolts M6 × 12 (d) and washers M6 (f), tighten all bolts M6 × 12 (d) (angle holding) and two bolts M8 × 20 (c) (attached in step 3) to secure the projector to the screen angle.

5 After having secured the projector, adjust the position of the screen and projected image using SHIFT function of the projector.

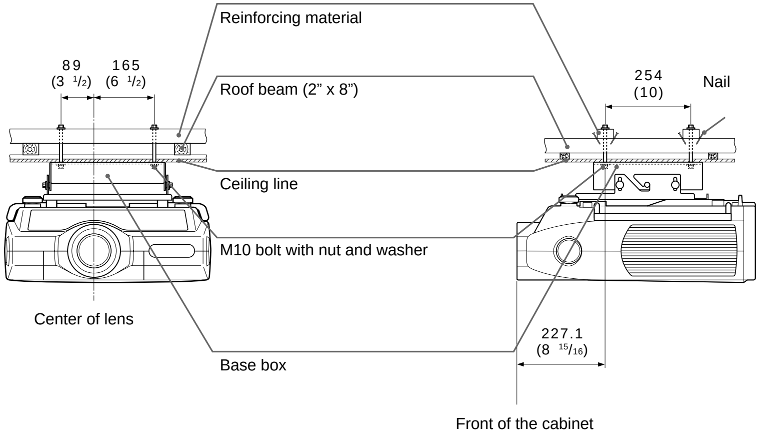
Installation Examples

The following illustrations show the projector suspension support attached to with the ceiling. Installation is different depending on the material of ceiling.

Caution

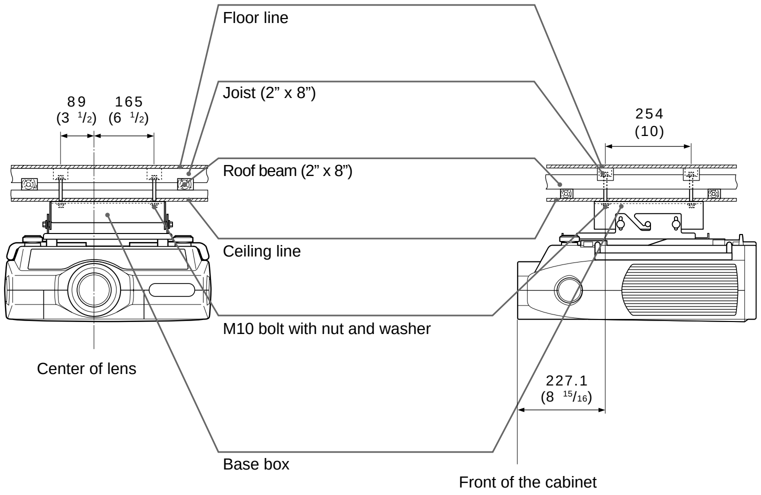
Before installation, check that the maximum ceiling loading is in excess of 250 kg (551 lb 2 oz).

For-one-story house or uppermost floor


Reinforcing material
89 (3 1/2)
165 (6 1/2)
Roof beam (2” x 8”)
254 (10)
Nail
Ceiling line
M10 bolt with nut and washer
Center of lens
227.1 (8 15/16)
Base box
Front of the cabinet

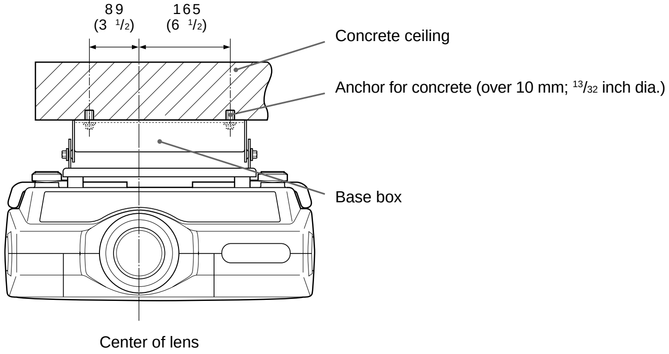
Units : mm (inches)

Installation Examples


89
(3 1/2)
165
(6 1/2)
Floor line
Joist (2" x 8")
Roof beam (2" x 8")
Ceiling line
M10 bolt with nut and washer
Center of lens
Base box
254
(10)
227.1
(8 15/16)
Front of the cabinet

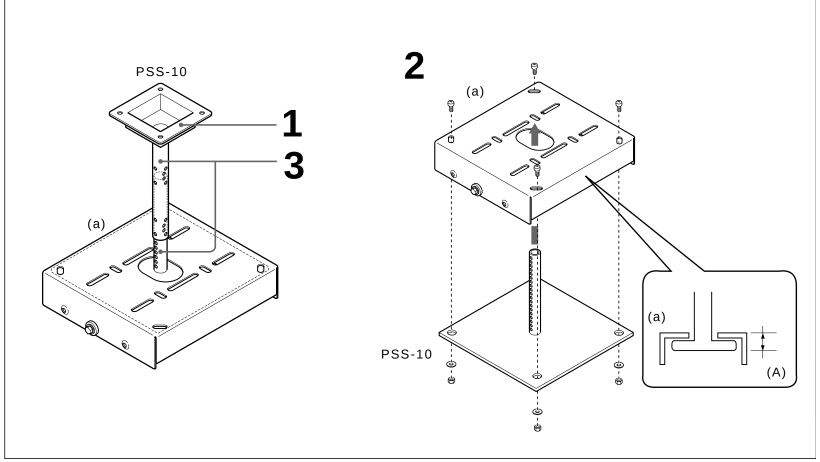
Units : mm (inches)

Place bolts at least 100 mm (4 inches) away from wall.


89
(3 1/2)
165
(6 1/2)
Concrete ceiling
Anchor for concrete (over 10 mm; 13/32 inch dia.)
Base box
Center of lens

http://getMANUAL.com

Installation Examples


PSS-10
1
3
(a)
2
(a)
PSS-10
(a)
(A)

English

1 Attach the upper part of the PSS-10 to the ceiling. (See the PSS-10 installation manual for details.)

2 Insert the lower part of the PSS-10 into the hole in the base box and secure them using the M10 bolts, M10 washers, and M10 nuts supplied with the PSS-10.

3 Adjust the length and secure the upper and lower parts of the PSS-10. (See the PSS-10 installation manual for details.)

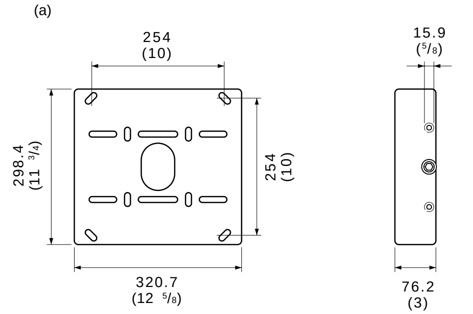
Note

The distance between the projector and the ceiling will be decreased by 5.5 mm (7/32 inch) (A) from the installation measurements of the PSS-10 when the PSS-2000 and the PSS-10 are used together.

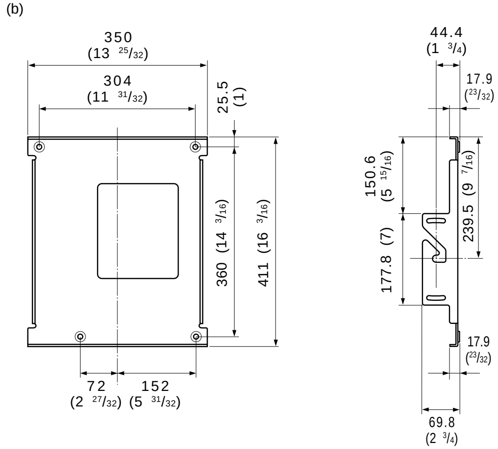
Specifications

Dimensions

Base box


(a)
254
(10)
15.9
(5/8)
298.4
(11 3/4)
254
(10)
320.7
(12 5/8)
76.2
(3)

Suspension bracket


(b)
350
(13 25/32)
304
(11 31/32)
25.5
(1)
360 (14 3/16)
411 (16 3/16)
72
(2 27/32)
152
(5 31/32)
44.4
(1 3/4)
17.9
(23/32)
150.6
(5 15/16)
239.5 (9 7/16)
177.8 (7)
17.9
(23/32)
69.8
(2 3/4)

Units : mm (inches)

[redacted]

Mass : Approx. 5.5 kg (12 lb 2 oz)
Loading: Maximum 50 kg (110 lb 4 oz)

Design and specifications are subject to change without notice.

SONY

3-865-454-**01**(1)

Projector Stand

Installation manual

TÜV Rheinland
BAUART GEPRÜFT
TYPE APPROVED

SU-PJ2000

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Specifications 44

Overview

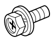
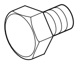
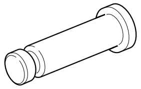
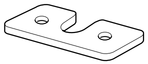
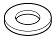
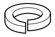
English

Maximum load of one projector stand: Up to 50 kg (110 lb 4 oz) per projector

The SU-PJ2000 projector stand is designed for use with Sony LCD data projector VPL-FE100U/E/M. You can stack up to three stands.

Caution
You can attach only one projector to one projector stand.

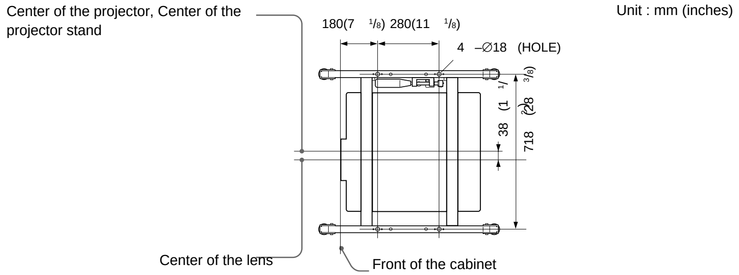
Parts List

		Parts number	
(a)	**Screw M6 × 14 (8)**	4-068-381-01	
(b)	**Screw M10 × 20 (4)**	4-068-379-01	
(c)	**Shaft stack (4)**	4-068-383-01	
(d)	**Bracket stack (4)**	4-068-382-01	
(e)	**Flat washer M10 (4)**	4-068-378-01	
(f)	**Spring washer M10 (4)**	4-068-380-01	

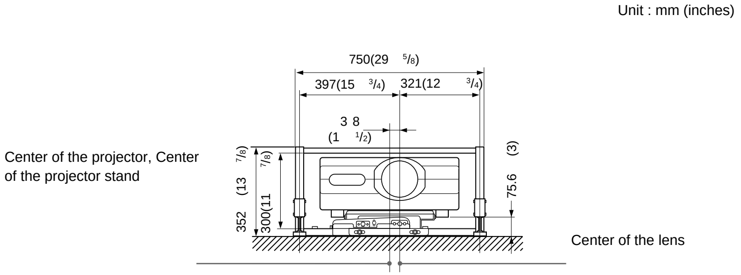
Installation Diagram

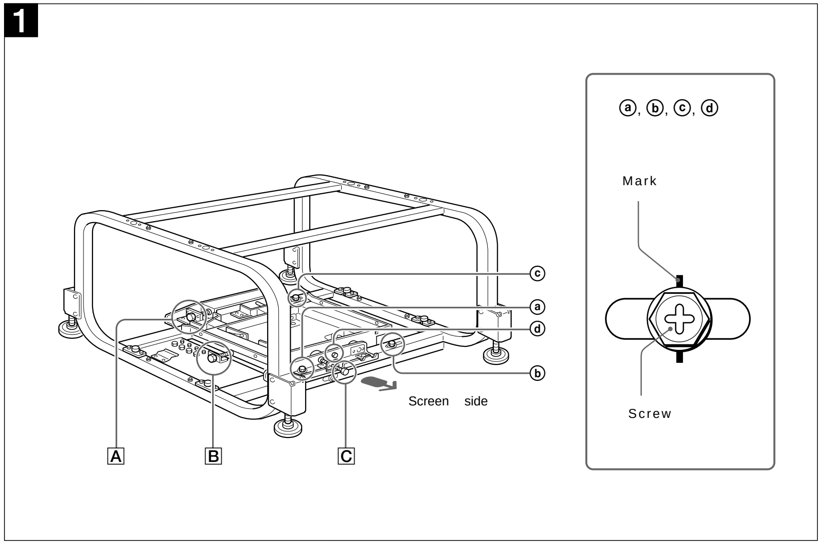
For details of screen size and installation measurement for projection, refer to the Installation Manual of the projector.

Top view


Center of the projector, Center of the projector stand
Unit : mm (inches)
180(7 1/8) 280(11 1/8)
4 –∅18 (HOLE)
38 (1 1/2)
718 (28 3/8)
Center of the lens
Front of the cabinet

Front view


Unit : mm (inches)
750(29 5/8)
397(15 3/4) 321(12 3/4)
3 8 (1 1/2)
Center of the projector, Center of the projector stand
352 (13 7/8)
300(11 7/8)
75.6 (3)
Center of the lens



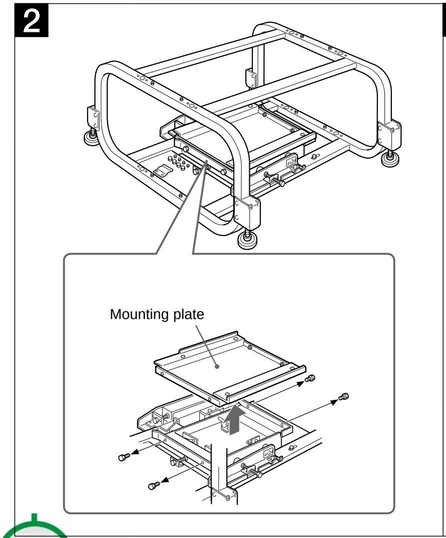
English

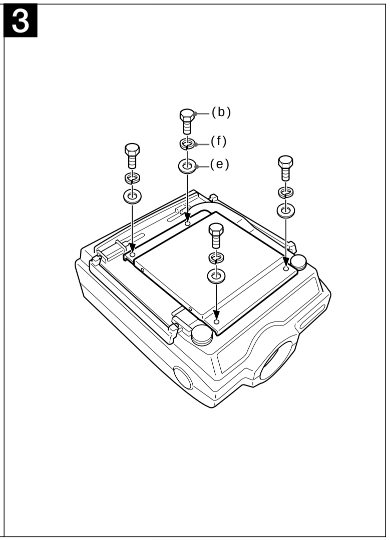
Attaching the projector to the projector stand

1 Loosen the screws ⓐ, ⓑ, ⓒ, ⓓ, and be sure that the each screw is positioned to the mark line.
To move the screws to the correct position, turn the knobs A, B, C.

To move screw ⓐ: turn the knob A.
To move screws ⓑ, ⓒ: turn the knob B.
To move screw ⓓ: turn the knob C.

(Continued)





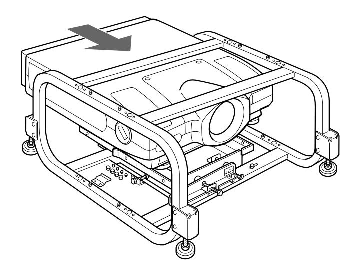
English

2 Remove the mounting plate from the projector stand.
Remove the screws (4) with the Phillips head screwdriver.

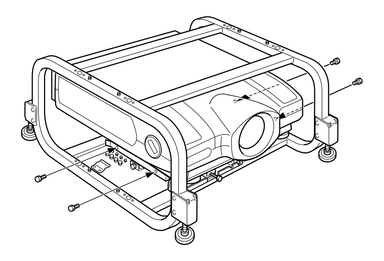
3 Turn over the projector, then turn over the mounting plate and attach it to the projector aligning the projections of the mounting plate with the holes of the projector.
Fix the plate with the supplied screw M10 × 20 (b) (4), flat washer M10 (e) (4) and spring washer M10 (f) (4) by using the wrench attached to the stand.

(Continued)

4



5

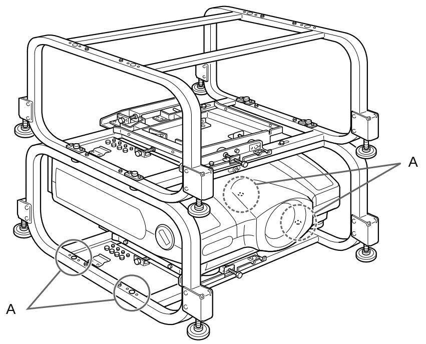


English

4 Re-position the projector with the mounting plate attached so that it faces in the original direction. Then, slide the projector into the tray of the projector stand from the rear, using the guides.

5 Slide the projector in until the mounting plate stops (foremost position).
Use the screws (4) removed in step **2**.

2



English

Stacking the projector stand

You can stack up to three SU-PJ2000 projector stands.

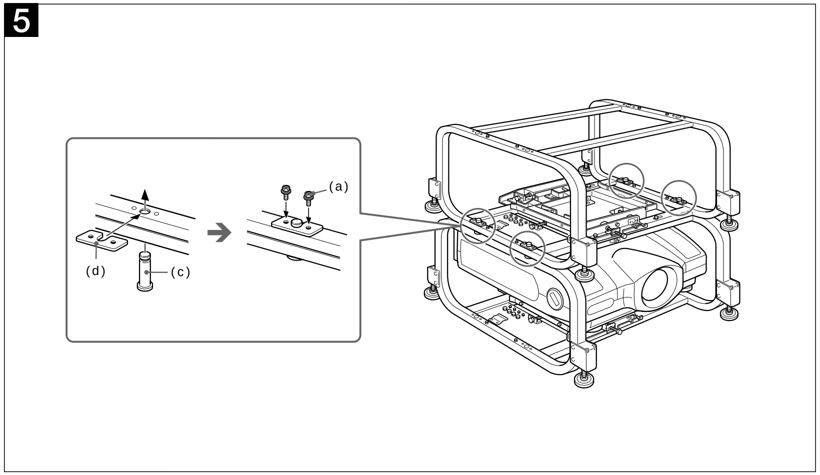
1 Put the 1st projector stand with the projector at the place they are to be used.
Place the stand on a flat surface facing the screen.

2 Display the HATCH pattern of the projector, adjust the horizontal and vertical positioning and fix the A (4) with the commercially available bolts (M14) and washers (M14).

3 Follow to the steps **1** to **3** of “Attaching the projector to the projector stand” (page 10) for 2nd and 3rd projectors.

4 Stack the 2nd projector stand on the 1st stand.

(Continued)



English

5 Fix the 1st and 2nd stands.
Insert the shaft stack (c) from the under side and fix the projector stand with the bracket stack (d). Fix the bracket stack with the supplied screws M6 × 14 (a) (8) .

6 **Triple stack:** Stack the 3rd projector stand on the 2nd stand and fix them as step **5**.

7 Attach the projectors to the 2nd and 3rd projector stands.

Aligning projectors

English

Notes

- When adjusting with the Remote Commander, set a different index number on each projector, and designate the projector to be operated with the Remote Commander.
- For details on the following operations of the projector, see the Installation Manual for Dealers of the VPL-X2000U/E/M.
  -Setting the index number.
  -Entering into the service mode.
  -Adjusting the picture.
  -Adjusting the focus.
- Complete the adjustment on the 1st projector as the pictures of the 2nd and 3rd projectors are aligned with the picture of the 1st projector.

1 Press the ON key of the Remote Commander or the control panel for all projectors.
The ON indicator lights in green.

2 Enter into the SERVICE MODE for all projectors.

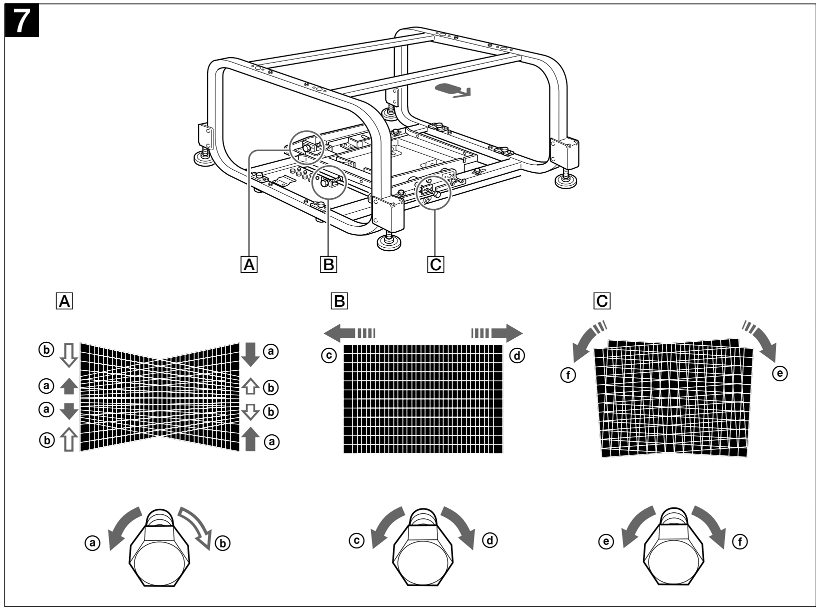
3 Put the lens cap on the 2nd and 3rd projectors or mute the picture by pressing the MUTING key.

4 Press the PATTERN key for the 1st projector on the Remote Commander or the control panel to display the HATCH pattern.

5 Adjust the focus with the FOCUS + or – key on the Remote Commander or the control panel.

6 Adjust the screen size using the ZOOM + or – key on the Remote Commander or the control panel, and adjust the vertical positioning using the SHIFT + or – key.

(Continued to page 24)



English

7 Adjust the picture precisely as follows.

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 26)

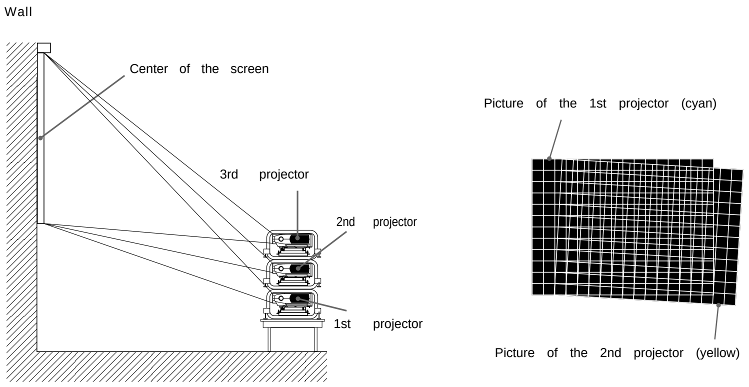
English

8 After completing the adjustment of the 1st projector, tighten the screws (4) of the 1st projector stand.

Notes
- If the HATCH pattern is not displayed properly on the screen, or is out of focus after the adjustments above, repeat steps **5** and **6** to adjust finely.
- Be sure not to readjust the 1st projector after completing the adjustments to it. When aligning all pictures, adjust the 2nd or 3rd projector to align its picture with that of the 1st projector.

(Continued to page 28)

9


Wall
Center of the screen
3rd projector
2nd projector
1st projector
Picture of the 1st projector (cyan)
Picture of the 2nd projector (yellow)

English

9 Remove the lens cap on the 2nd projector or release the muting by pressing the MUTING key.

10 Press the PATTERN key for the 1st projector on the Remote Commander or the control panel to display the HATCH pattern in cyan.

11 Press the PATTERN key for the 2nd projector on the Remote Commander or the control panel to display the HATCH pattern in yellow.

(Continued to page 30)

English

Align the picture of the 2nd projector with that of the 1st projector for the following adjustments. When both pictures are aligned correctly, the HATCH pattern is displayed in white.

12 Adjust the focus for the 2nd projector.

13 Adjust the picture size and the vertical positioning.

Picture size
Adjust it using the ZOOM + or – key on the Remote Commander or the control panel.

Vertical positioning
Adjust it using the SHIFT + or – key on the Remote Commander or the control panel.

Notes

- Be sure not to readjust the focus after aligning both pictures.
- Be sure not to readjust the 1st projector while adjusting the 2nd projector.

(Continued to page 34)

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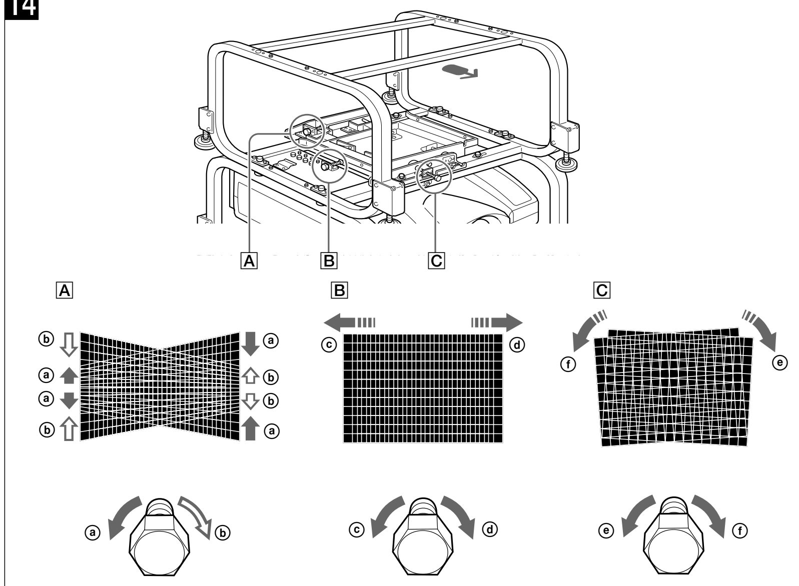
14



English

14 Adjust the picture precisely as follows.

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 36)

English

15 **Triple stack:** Remove the lens cap from the 3rd projector or release the muting by pressing the MUTING key. Put the lens cap on the 2nd projector or mute the picture by pressing the MUTING key. Then press the PATTERN key for 3rd projector on the Remote Commander or the control panel to display the HATCH pattern in yellow.

16 Adjust the focus for 3rd projector aligning the picture of the 3rd projector with that of the 1st projector.

17 Adjust the picture size and the vertical positioning.

Picture size
Adjust it using the ZOOM + or – key on the Remote Commander or the control panel.

Vertical positioning
Adjust it using the SHIFT + or – key on the Remote Commander or the control panel.

18 Adjust the picture precisely as follows. (See page 34.)

A Adjusting the vertical picture size
- ⓐ The left side of the picture is enlarged and right side is shortened, when the knob A is turned counterclockwise.
- ⓑ The right side of the picture is enlarged and left side is shortened, when the knob A is turned clockwise.

B Adjusting the horizontal picture size (adjustment range is ±15 mm)
- ⓒ The picture moves leftward, when the knob B is turned counterclockwise.
- ⓓ The picture moves rightward, when the knob B is turned clockwise.

C Adjusting the incline of the picture (adjustment range is ±2.5°)
- ⓔ The picture turns rightward, when the knob C is turned counterclockwise.
- ⓕ The picture turns leftward, when the knob C is turned clockwise.

(Continued to page 40)

English

19 After completing the adjustment, project the input signals from the 2nd and 3rd projectors, be sure to align the pictures. After that, tighten the screws (each 4).

20 Press the PATTERN keys for all projectors on the Remote Commander or the control panel to clear the HATCH pattern.

21 Project the input signals from all projectors.
If the projected pictures are not aligned properly, check the following and adjust the settings.

1 Make sure that all the settings in the INPUT SETTING menu are the same.

2 Adjust the DOT PHASE in the INPUT SETTING menu.

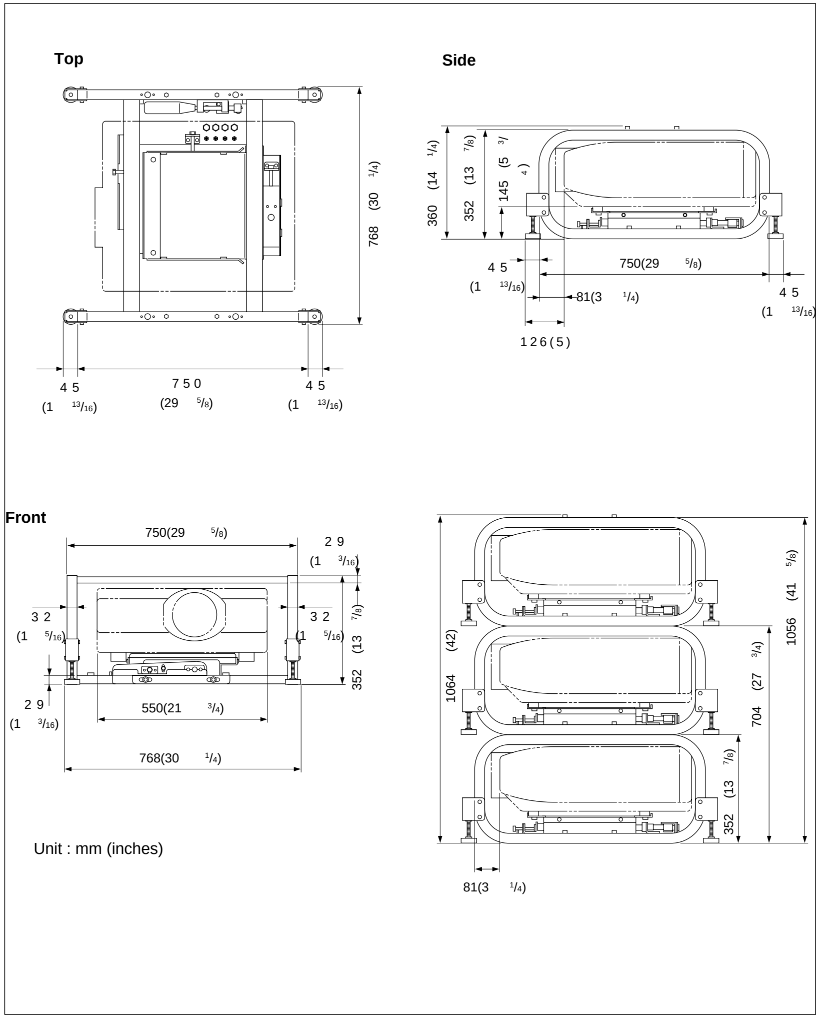
3 Adjust the H value of SHIFT in the INPUT SETTING menu.

Note

When adjusting one projector, put the lens cap on the other projector or mute the picture by pressing the MUTING key.

Specifications

Dimensions


Top
768 (30 1/4)
45 (1 13/16)
750 (29 5/8)
45 (1 13/16)
Side
360 (14 1/4)
352 (13 7/8)
145 (5 3/4)
45 (1 13/16)
750(29 5/8)
81(3 1/4)
45 (1 13/16)
126(5)
Front
750(29 5/8)
29 (1 3/16)
32 (1 5/16)
32 (1 5/16)
352 (13 7/8)
29 (1 3/16)
550(21 3/4)
768(30 1/4)
1064 (42)
1056 (41 5/8)
704 (27 3/4)
352 (13 7/8)
81(3 1/4)
Unit : mm (inches)

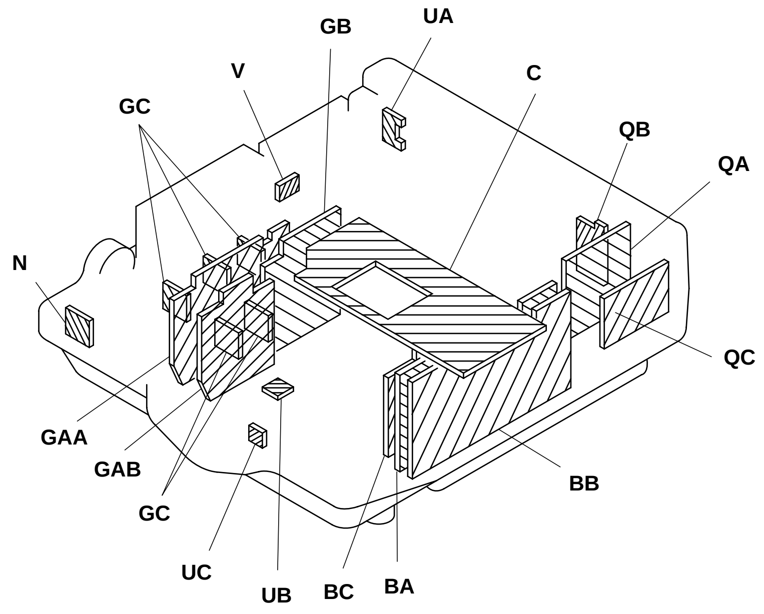
English

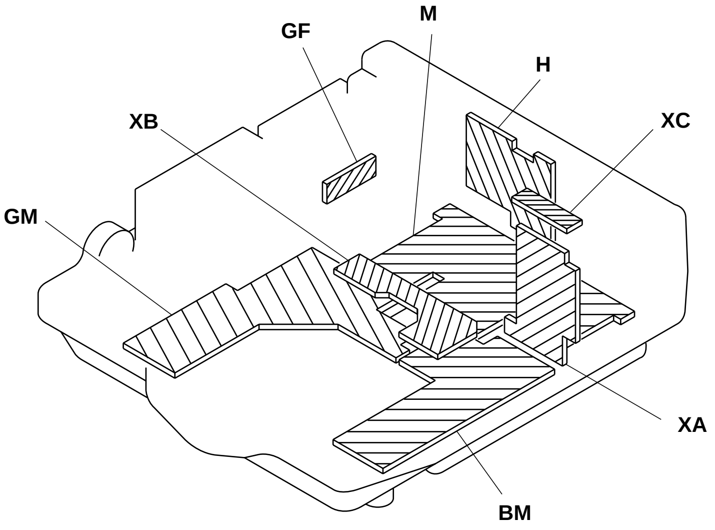
Mass	Approx. 32kg (70 lb 9 oz)
Maximum load of one projector stand	Up to 50 kg (110 lb 4 oz) per projector
Accessory	Screw M6 × 14 (8) Screw M10 × 20 (4) Shaft stack (4) Bracket stack (4) Flat washer M10 (4) Spring washer M10 (4) The eight spare bolts are attached on the lower tray of the projector stand. Use these spare bolts if necessary.

Design and specifications are subject to change without notice.

Section 2
Service Informations

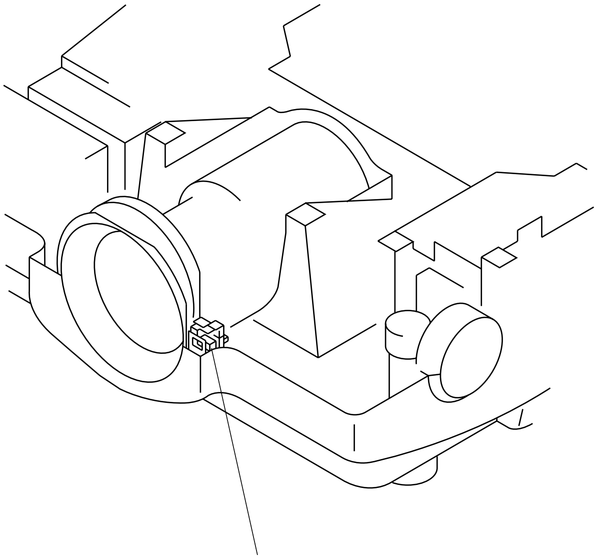
2-1. Circuit Boards Location


GB
UA
V
C
GC
QB
QA
N
QC
GAA
BB
GAB
GC
UC
UB
BC
BA


M
GF
H
XB
XC
GM
XA
BM

2-2. Precautions on Electrical Measurements

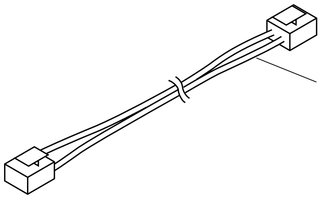
(1) A lens cover detection switch (UC board) is provided at the part for attaching the projection lens to prevent power from being supplied when the lens hood is disconnected. When performing electrical measurements with the lens hood open, fix the switch with adhesive tape and clear the protect so that power is supplied.
To attach the lens hood removed, be sure to remove the adhesive tape.

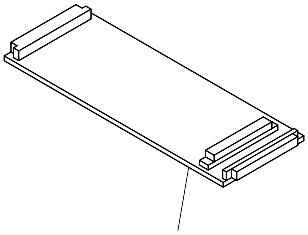

Lens cover switch

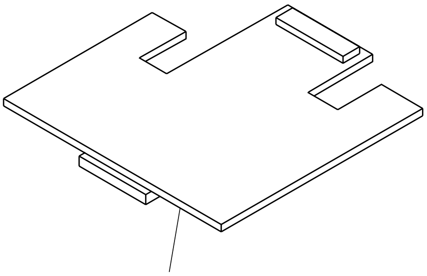
(2) When the C board is removed, various protect functions operate and no power is supplied. Before beginning electrical measurements, clear the protect functions.
①Connect Pin ㉚ (CVR-PRT-CB) and Pin ⑰ (SUB+5V) of CN4002 of the BC board using a 1 kΩ resistor.
②Connect Pin ⑪ (FAN PROT), Pin ⑯ (GND), Pin ⑫ (TEMP PROT), and Pin ⑨ of CN3602 of the BB board using wiring.

Be sure to disconnect them after completing measurements.

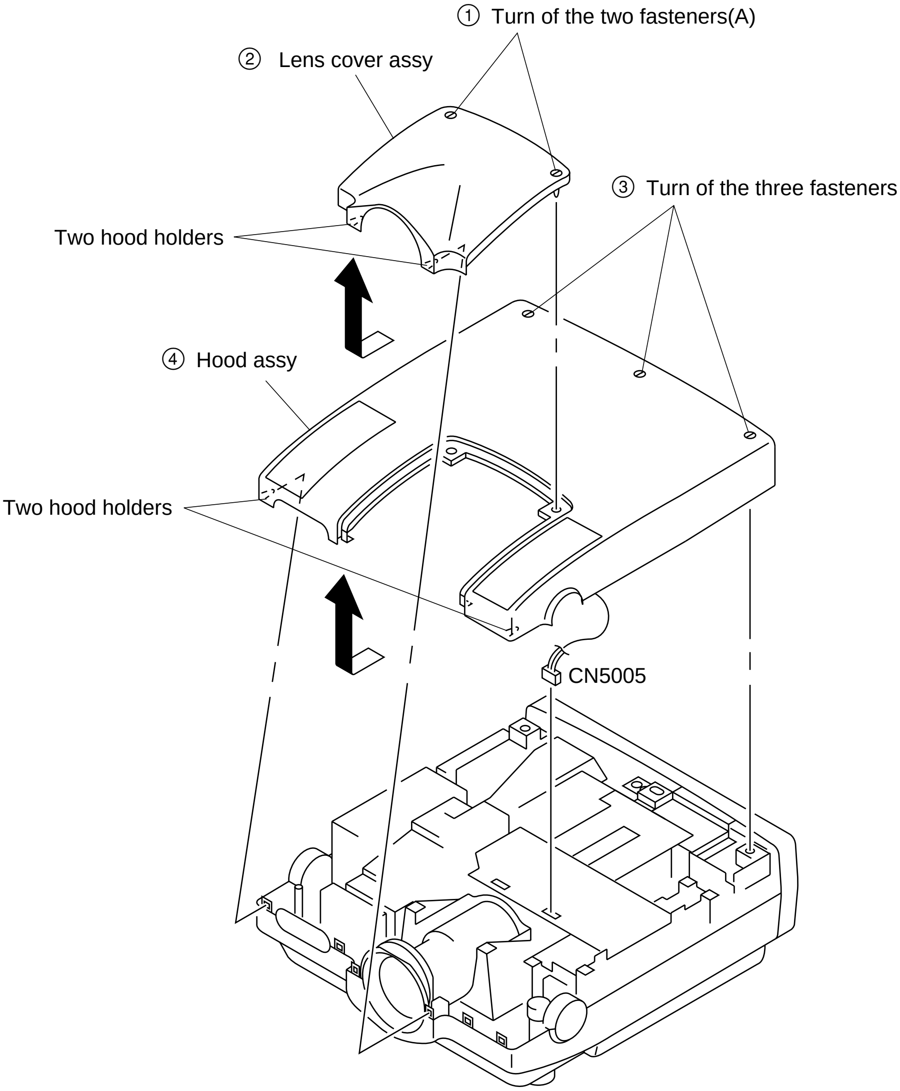
(3) Use the following servicing tools.


Cable (3pin) (1-900-244-53)
Use when inserting the following extension board / XE board (A-1501-122-A) into the GAA and GAB boards.

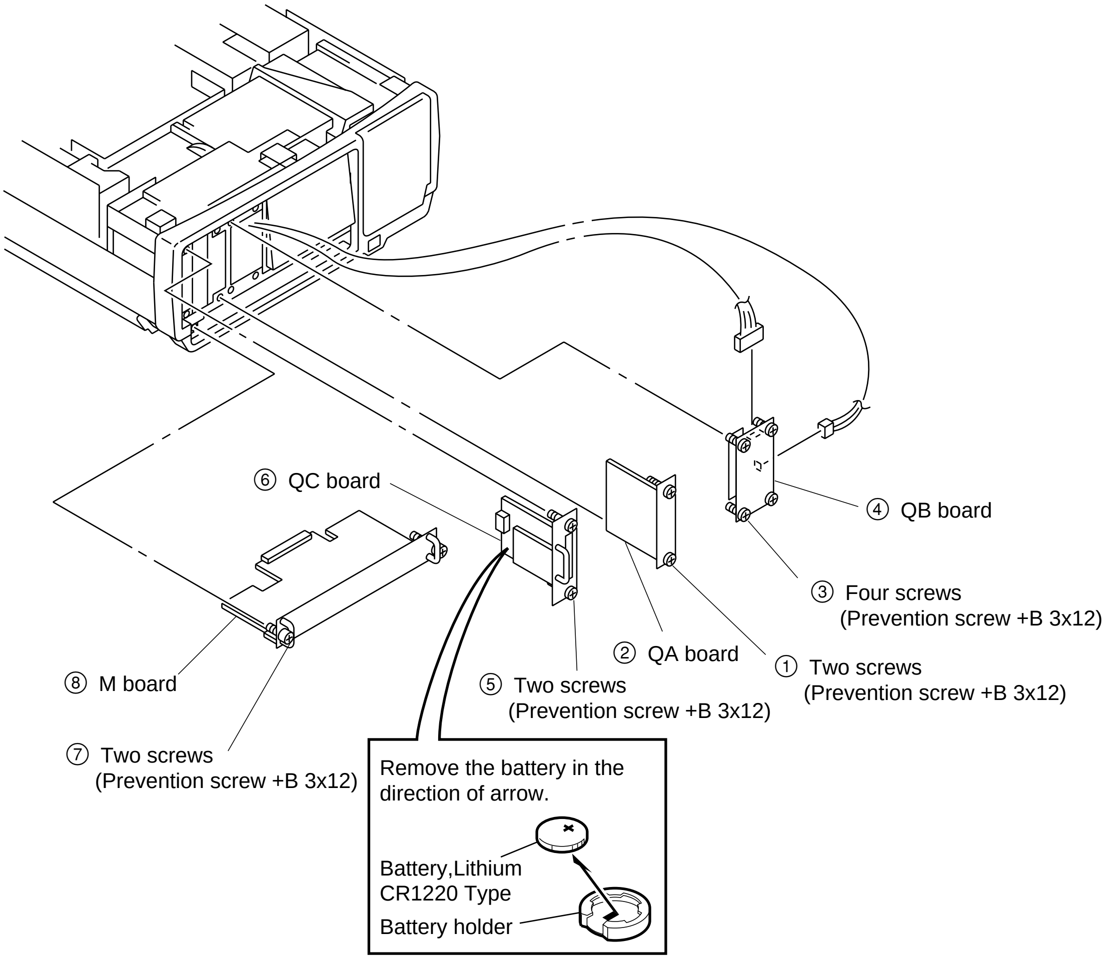

XE board (A-1501-122-A)
For boards BC,GAA,GAB,GB,and QA


XTA board (A-1390-928-A)
For boards BA and BB

2-3. Cover Removal


① Turn of the two fasteners(A)
② Lens cover assy
③ Turn of the three fasteners
Two hood holders
④ Hood assy
Two hood holders
CN5005

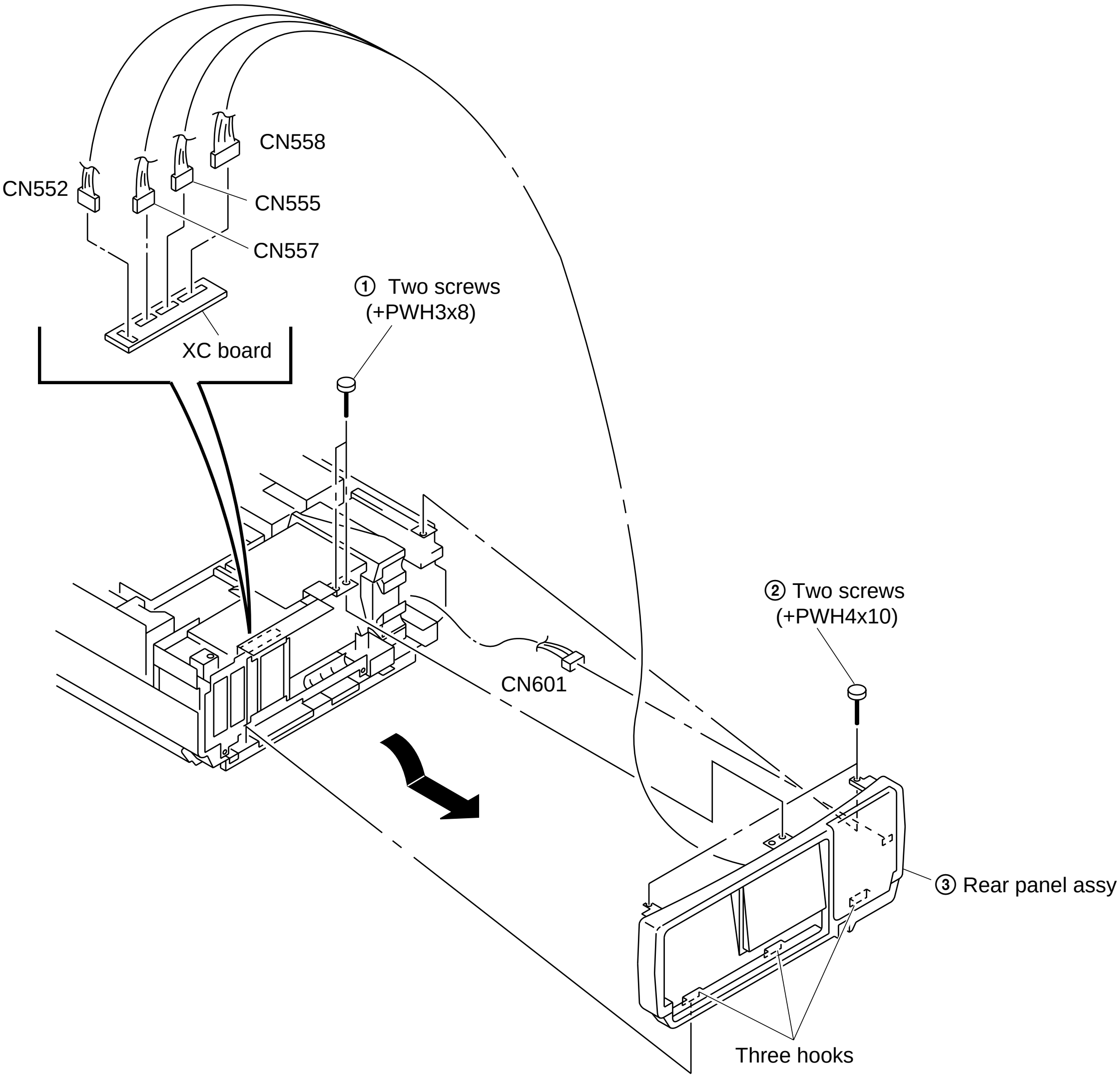
2-4. M,QA and QB Boards Removal


⑥ QC board
④ QB board
③ Four screws
(Prevention screw +B 3x12)
② QA board
① Two screws
(Prevention screw +B 3x12)
⑧ M board
⑤ Two screws
(Prevention screw +B 3x12)
⑦ Two screws
(Prevention screw +B 3x12)
Battery,Lithium
CR1220 Type
Battery holder

Remove the battery in the direction of arrow.

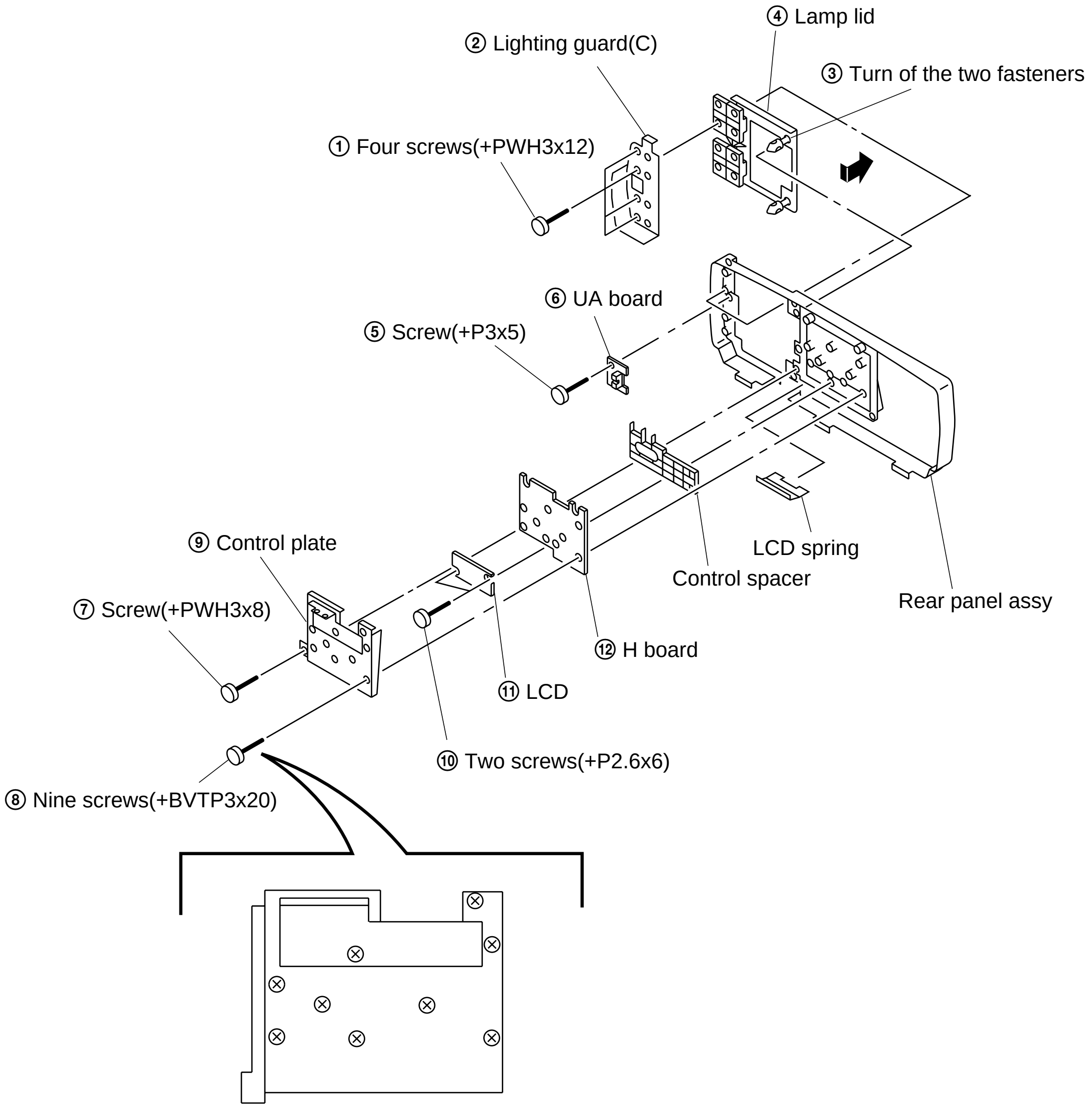
2-5. Rear Panel Assy Removal

- •Remove the M , QB and QC boards.

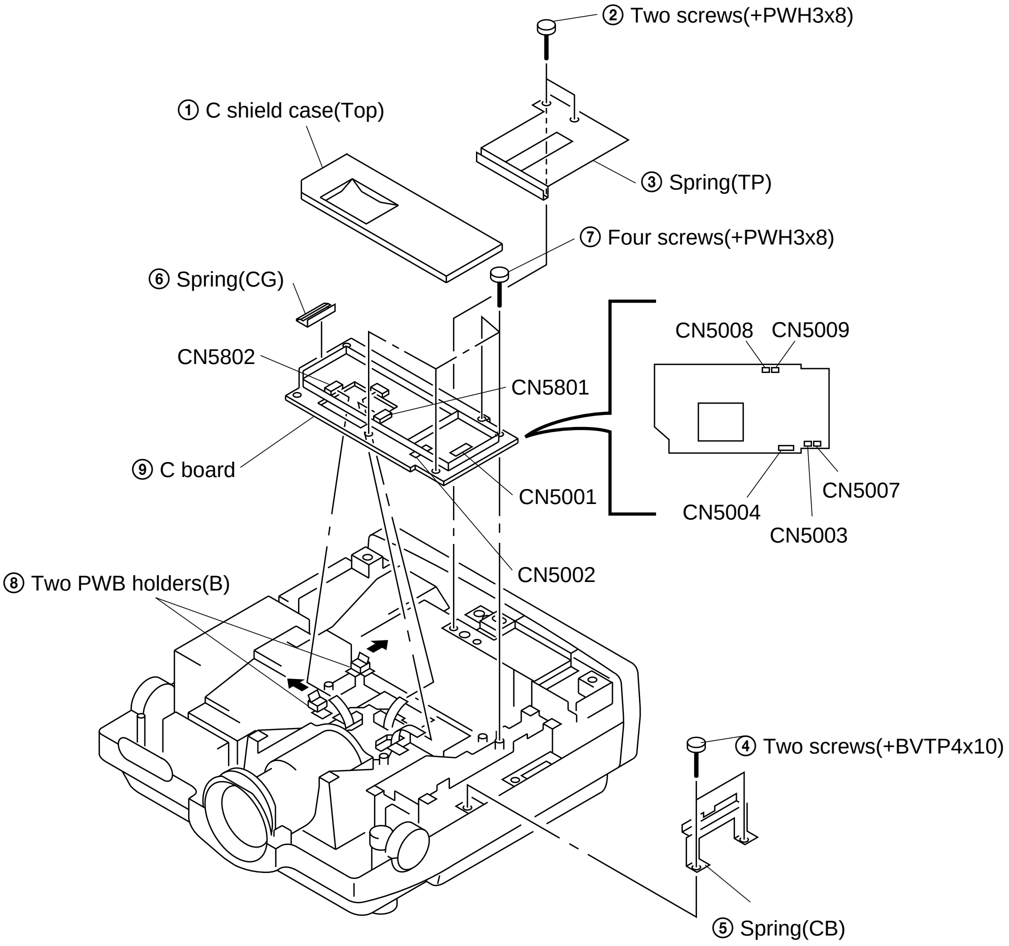

CN558
CN552
CN555
CN557
① Two screws
(+PWH3x8)
XC board
② Two screws
(+PWH4x10)
CN601
③ Rear panel assy
Three hooks

2-6. UA and H Boards Removal

•Remove the rear panel assy.

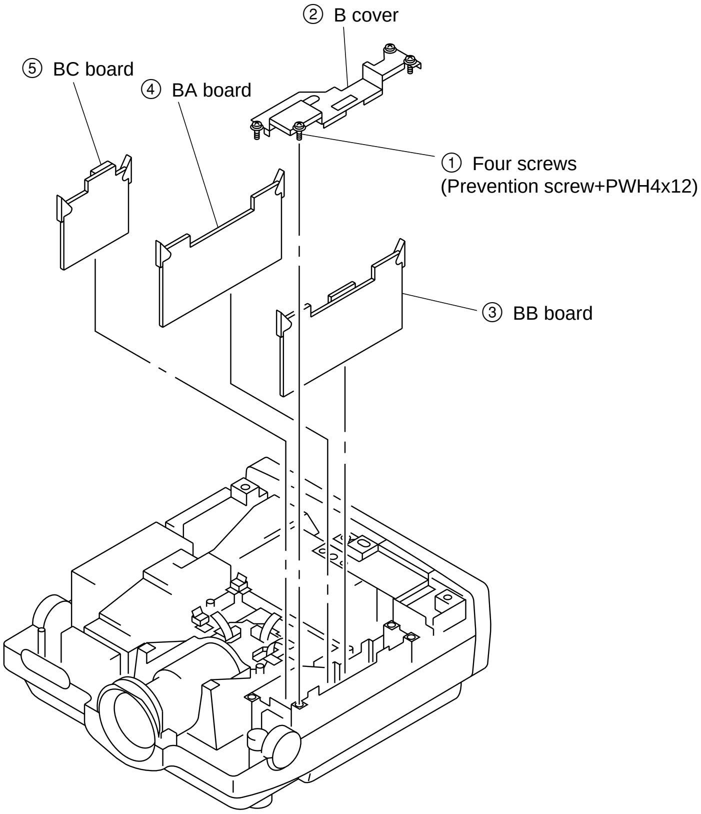

④ Lamp lid
② Lighting guard(C)
③ Turn of the two fasteners
① Four screws(+PWH3x12)
⑥ UA board
⑤ Screw(+P3x5)
⑨ Control plate
LCD spring
Control spacer
Rear panel assy
⑦ Screw(+PWH3x8)
⑫ H board
⑪ LCD
⑩ Two screws(+P2.6x6)
⑧ Nine screws(+BVTP3x20)

2-7. C Board Removal

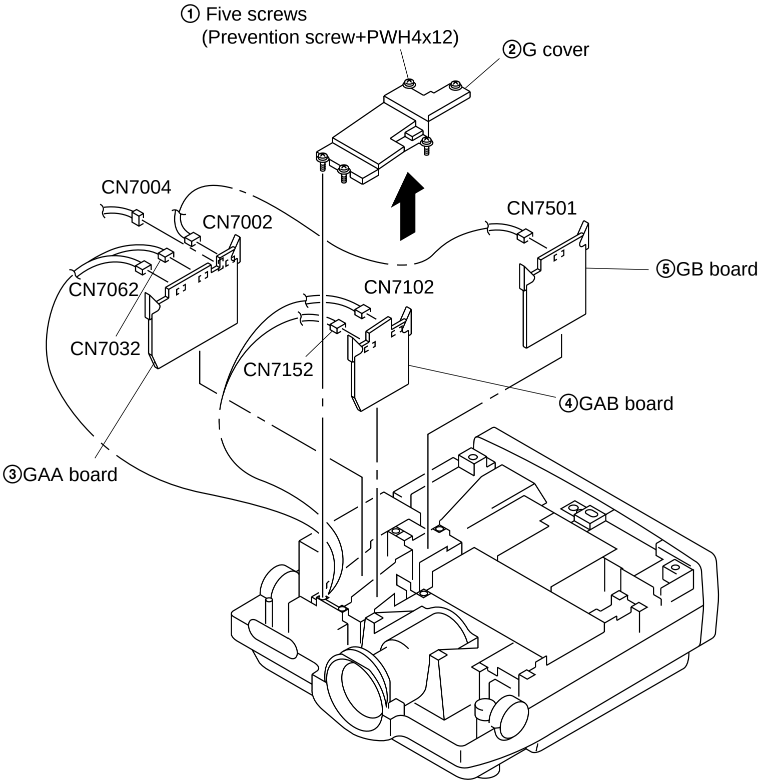

② Two screws(+PWH3x8)
① C shield case(Top)
③ Spring(TP)
⑦ Four screws(+PWH3x8)
⑥ Spring(CG)
CN5008
CN5009
CN5802
CN5801
⑨ C board
CN5001
CN5007
CN5004
CN5003
CN5002
⑧ Two PWB holders(B)
④ Two screws(+BVTP4x10)
⑤ Spring(CB)

2-8. BA, BB and BC Boards Removal

•Remove the C board.

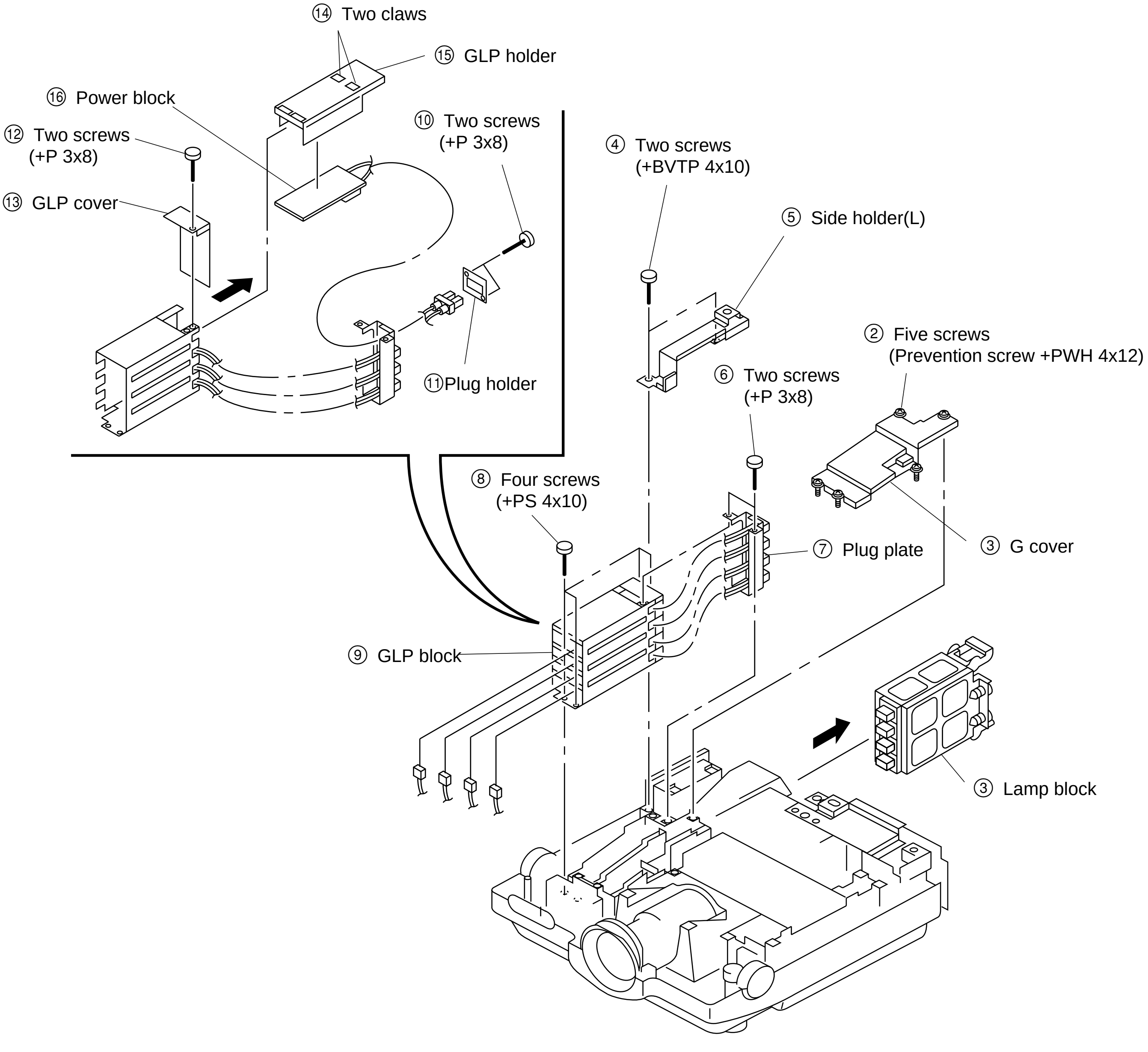

② B cover
⑤ BC board
④ BA board
① Four screws
(Prevention screw+PWH4x12)
③ BB board

2-9. GAA, GAB and GB Boards Removal


① Five screws
(Prevention screw+PWH4x12)
②G cover
CN7004
CN7002
CN7501
⑤GB board
CN7062
CN7102
CN7032
CN7152
④GAB board
③GAA board

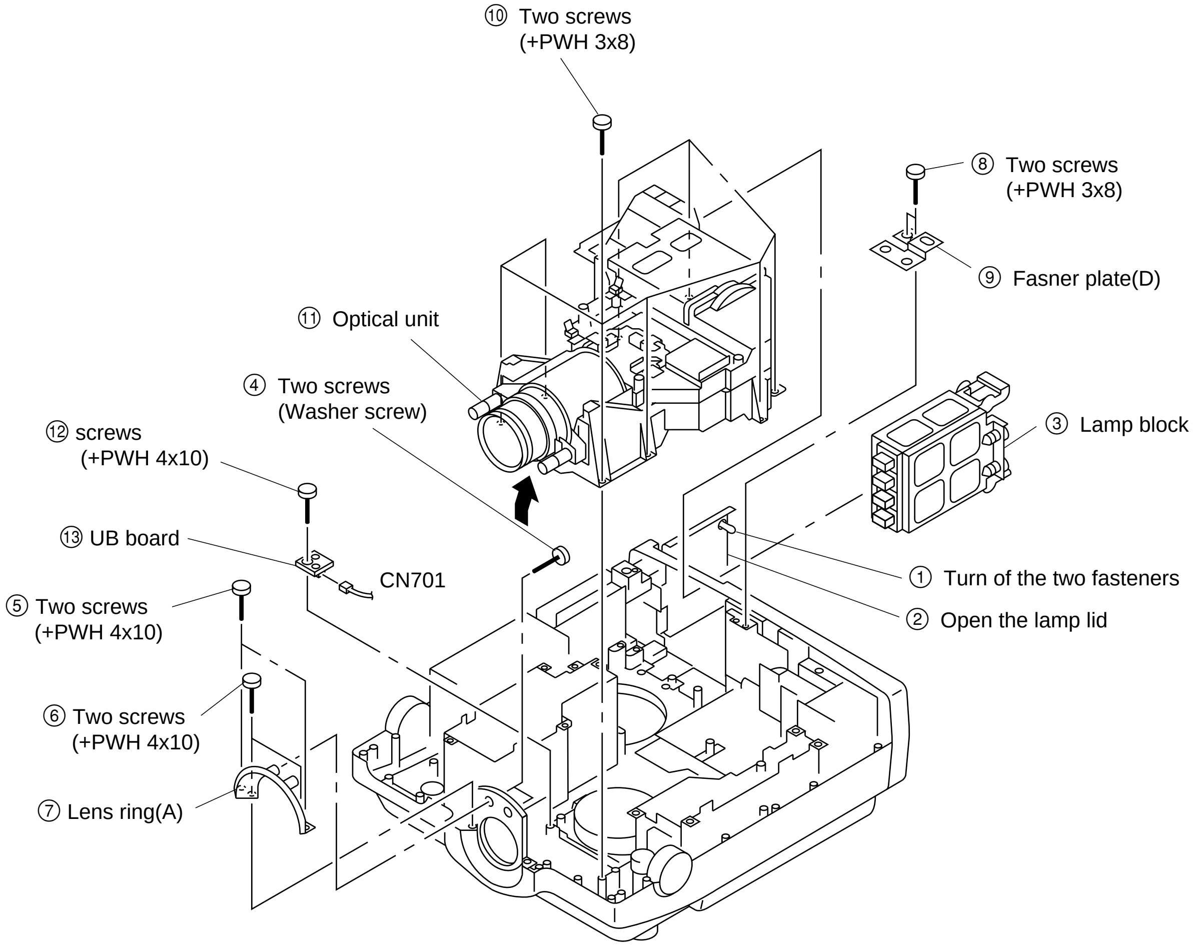
2-10. Power Block Removal

•Remove the rear panel assy.


⑭ Two claws
⑮ GLP holder
⑯ Power block
⑫ Two screws (+P 3x8)
⑬ GLP cover
⑩ Two screws (+P 3x8)
⑪Plug holder
④ Two screws (+BVTP 4x10)
⑤ Side holder(L)
② Five screws (Prevention screw +PWH 4x12)
⑥ Two screws (+P 3x8)
⑧ Four screws (+PS 4x10)
⑦ Plug plate
③ G cover
⑨ GLP block
③ Lamp block

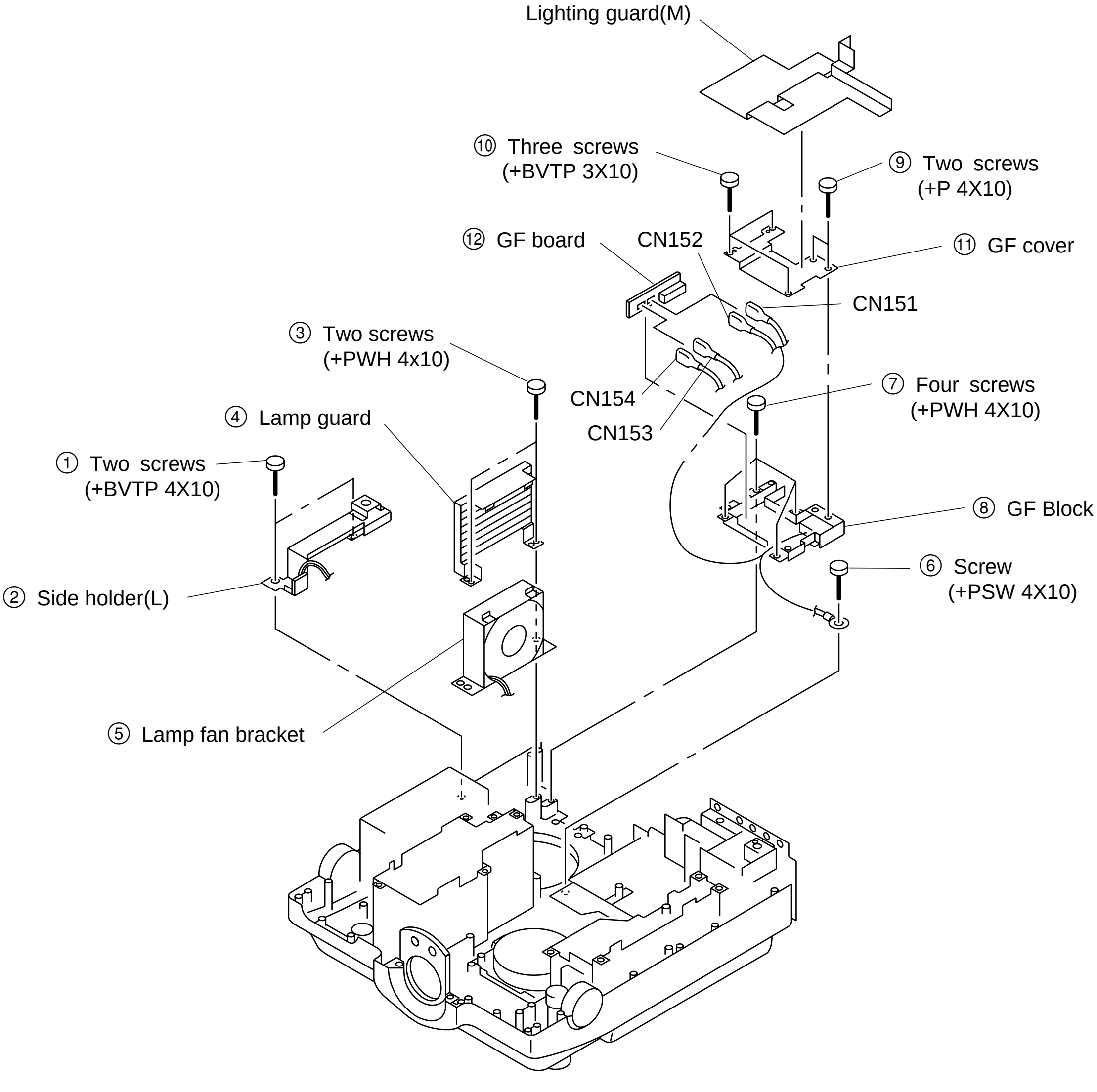
2-11. Optical unit and UB Board Removal

•Remove the C board.


⑩ Two screws
(+PWH 3x8)
⑧ Two screws
(+PWH 3x8)
⑨ Fasner plate(D)
⑪ Optical unit
④ Two screws
(Washer screw)
③ Lamp block
⑫ screws
(+PWH 4x10)
⑬ UB board
CN701
① Turn of the two fasteners
⑤ Two screws
(+PWH 4x10)
② Open the lamp lid
⑥ Two screws
(+PWH 4x10)
⑦ Lens ring(A)

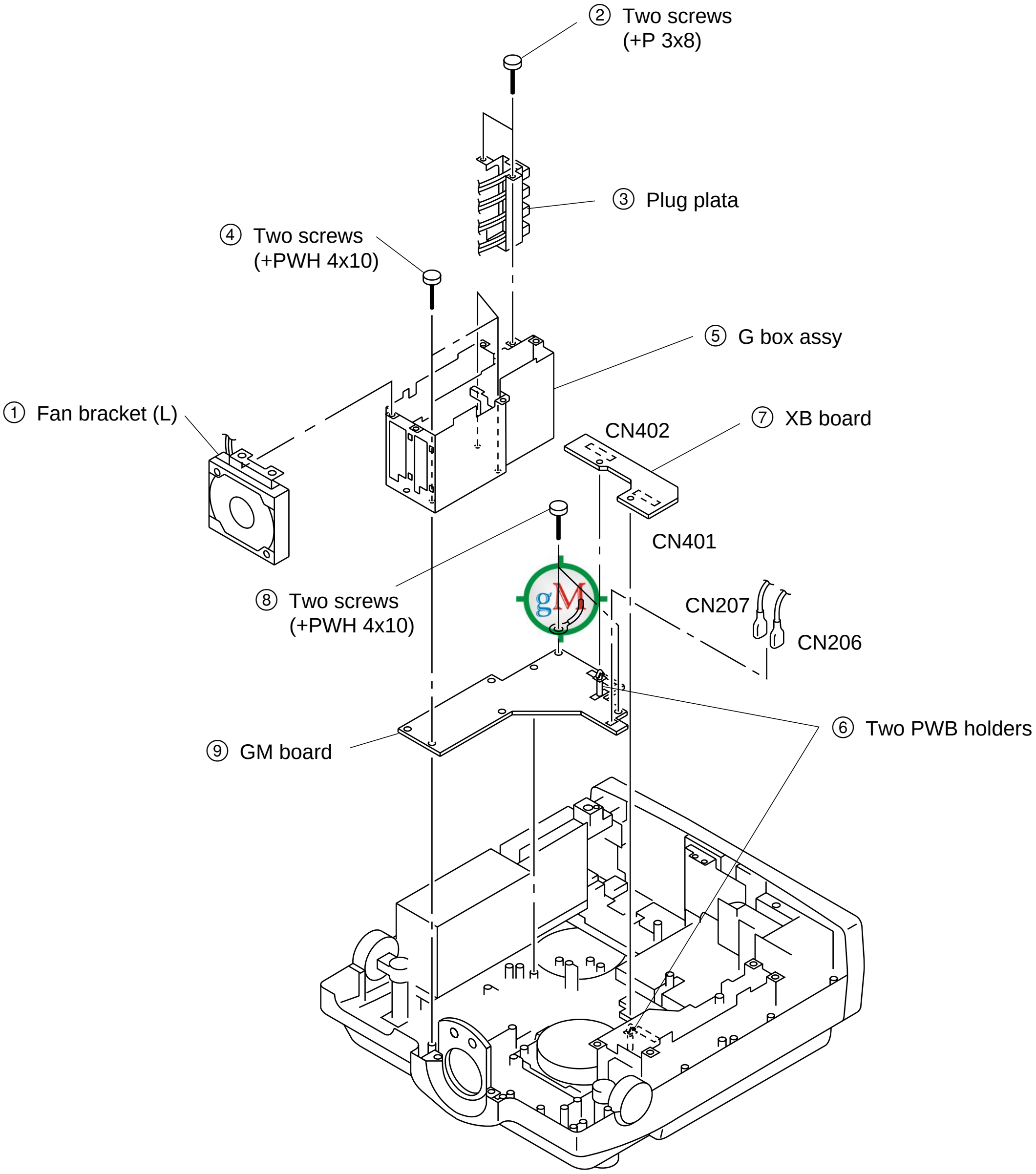
2-12. GF Board Removal

- •Remove the optical unit.
- •Remove the rear panel assy.


Lighting guard(M)
⑩ Three screws (+BVTP 3X10)
⑨ Two screws (+P 4X10)
⑫ GF board
CN152
⑪ GF cover
CN151
③ Two screws (+PWH 4x10)
CN154
⑦ Four screws (+PWH 4X10)
④ Lamp guard
CN153
① Two screws (+BVTP 4X10)
⑧ GF Block
⑥ Screw (+PSW 4X10)
② Side holder(L)
⑤ Lamp fan bracket

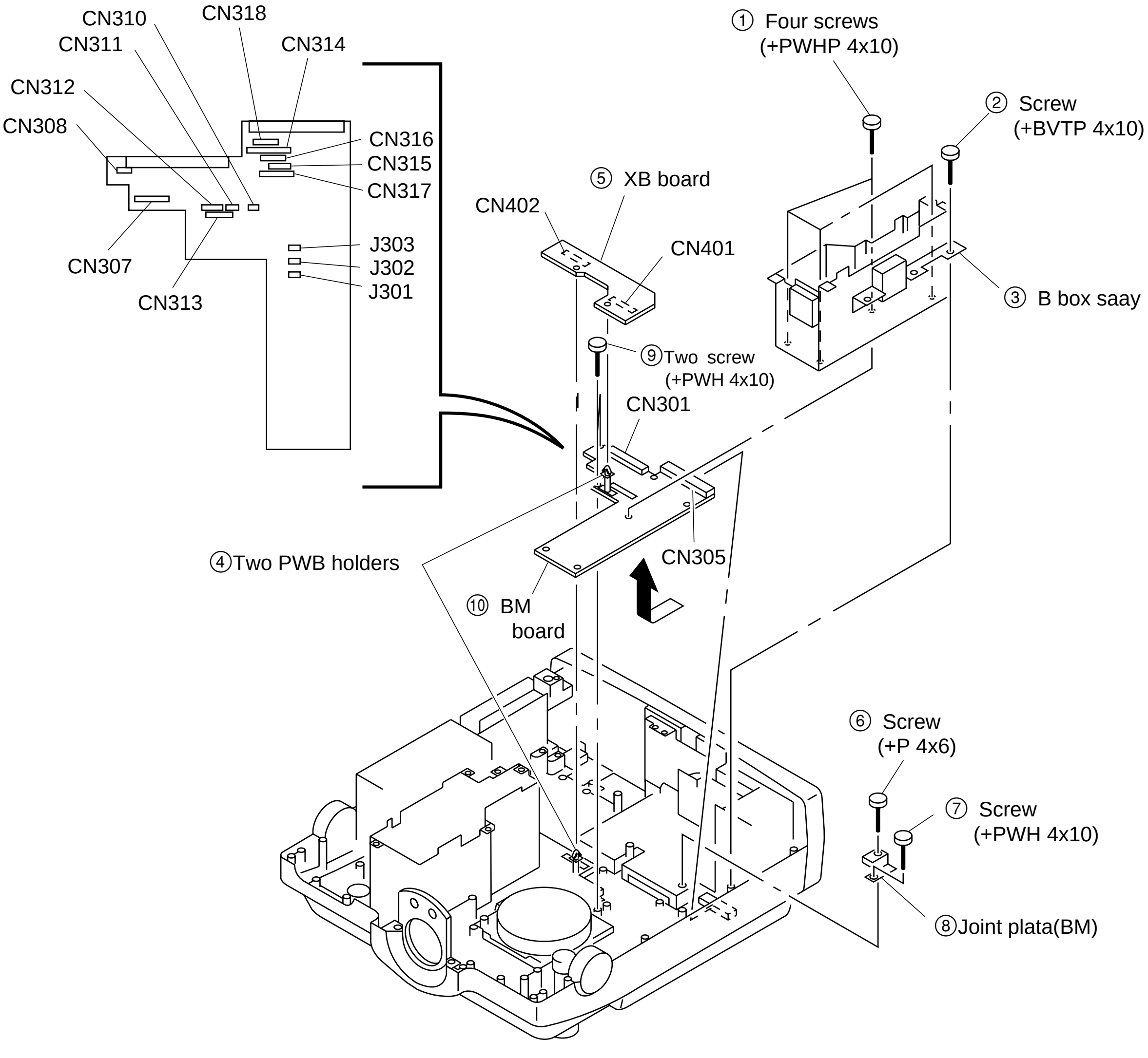
2-13. GM Board Removal

- •Remove the GAA,GAB and GB boards.
- •Remove the optical unit.


② Two screws
(+P 3x8)
③ Plug plata
④ Two screws
(+PWH 4x10)
⑤ G box assy
① Fan bracket (L)
CN402
⑦ XB board
CN401
⑧ Two screws
(+PWH 4x10)
CN207
CN206
⑥ Two PWB holders
⑨ GM board

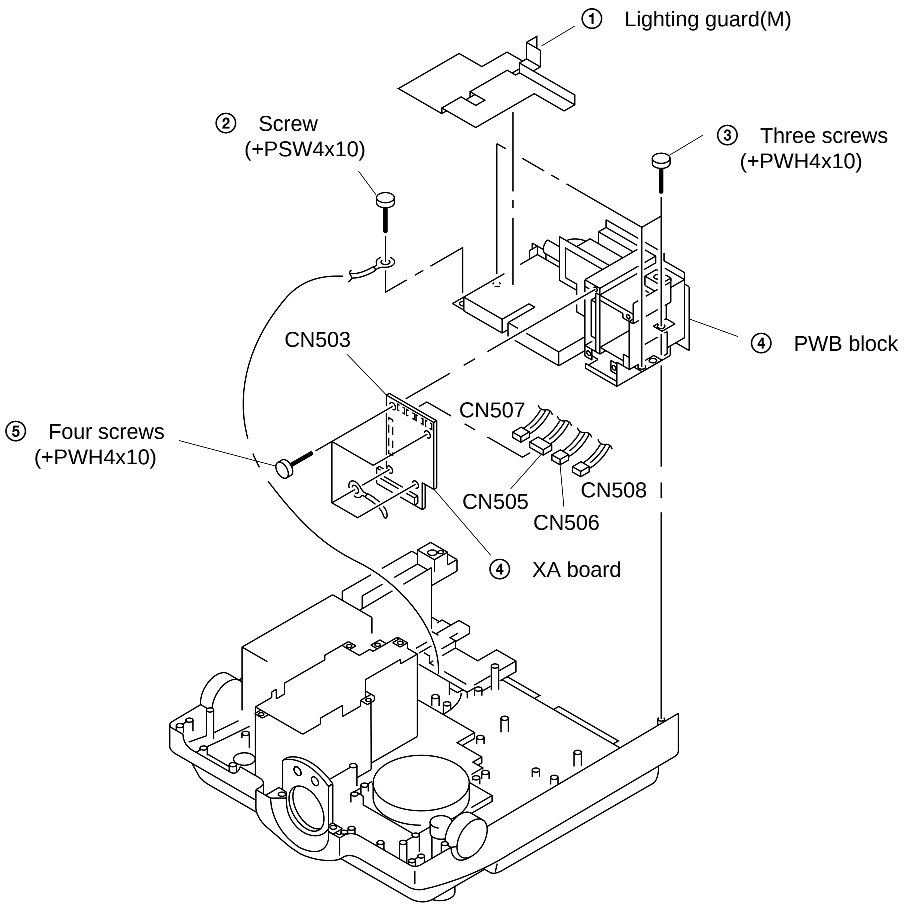
2-14. BM Board Removal

- •Remove the BA,BB and BC boards.
- •Remove the optical unit.


CN310
CN318
CN311
CN314
CN312
CN308
CN316
CN315
CN317
CN307
CN313
J303
J302
J301
① Four screws
(+PWHP 4x10)
② Screw
(+BVTP 4x10)
⑤ XB board
CN402
CN401
③ B box saay
⑨Two screw
(+PWH 4x10)
CN301
④Two PWB holders
CN305
⑩ BM
board
⑥ Screw
(+P 4x6)
⑦ Screw
(+PWH 4x10)
⑧Joint plata(BM)

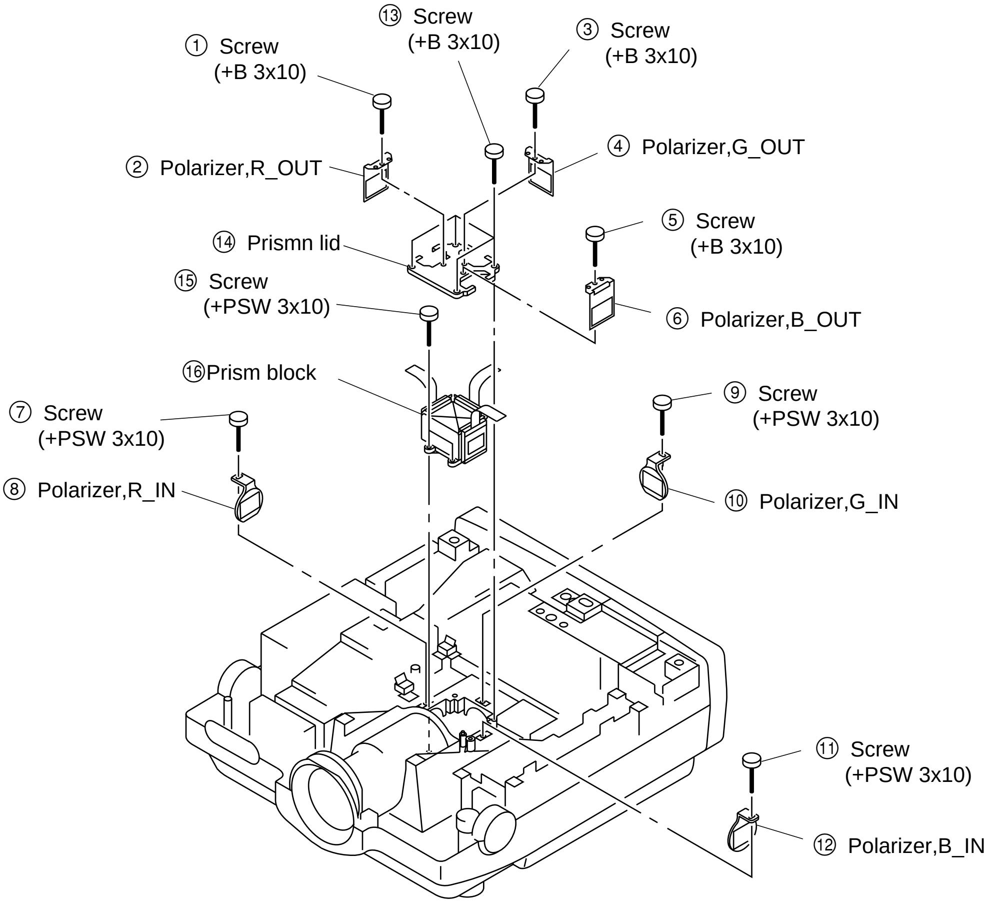
2-15. XA Board Removal

- •Remove the BM board.
- •Remove the rear panel assy.


① Lighting guard(M)
② Screw (+PSW4x10)
③ Three screws (+PWH4x10)
④ PWB block
CN503
CN507
⑤ Four screws (+PWH4x10)
CN508
CN505
CN506
④ XA board

2-16. Prism Block and R/G/B CH Condenser Lens Removal

- Remove the C board.


⑬ Screw (+B 3x10)
① Screw (+B 3x10)
③ Screw (+B 3x10)
④ Polarizer,G_OUT
② Polarizer,R_OUT
⑤ Screw (+B 3x10)
⑭ Prismn lid
⑮ Screw (+PSW 3x10)
⑥ Polarizer,B_OUT
⑯Prism block
⑨ Screw (+PSW 3x10)
⑦ Screw (+PSW 3x10)
⑧ Polarizer,R_IN
⑩ Polarizer,G_IN
⑪ Screw (+PSW 3x10)
⑫ Polarizer,B_IN

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Section 3

Electrical Adjustments

3-1.Equipment Required

- Oscilloscope
  Tektronix 2465 or equivalent
  (bandwidth: 350 MHz or more)
- NTSC, PAL, SECAM component signal generator
  Tektronix TG2000 + AVG1 (optionalmodule)
  +AWVG1 (optionalmodule) or equivalent
- VG (Programmable video signal generator)
  VG814 or equivalent
- Digital voltmeter
  Advantest TR6845 or equivalent
- Color Balance meter

Note: Perform the following adjustments at least 5 minutes after turning on the power.

3-2. Preparations

3-2-1. Attaching the lens

1. Attach the lens to the optical unit.
2. Press the stopper at the lens side to the stopper at the optical unit side and attach the lens with the 4 screws.
3. Connect the focus and zoom cables.

3-2-2. Turning on the Power

1. Connect the power cord and supply the power.
2. Check that the STANDBY LED of the control panel lights up in red.

3-2-3. Set the service mode.

- Refer to Installation Manual for Dealers.

3-2-4. Set the factory mode.

- When “ENTER,” “ENTER, ” “←, ” and “ENTER” are pressed in the service mode, the screen will ask “do you want to set the factory mode.” Set the factory mode according to the screen.

3-3. C Board Adjustments

3-3-1. SCEN Adjustments

1. Set the service mode.
2. Set the factory mode.
3. Input the XGA 100IRE all white signal to INPUT-A, and select INPUT-A.
4. Connect an oscilloscope to TP5803 of the C board.
5. Set Device Adjust on the menu, select C-P DRV, and press ENTER key.
6. Set SCEN using the ↑ and ↓ keys.
7. Adjust SIGSEN using the ← and → keys so that the 100IRE on the inverted side and 100IRE of the non-inverted side become symmetrical centering around the following voltage.
   From center voltage to GND = 7V ± 0.1V

3-3-2. SID OFST Adjustments

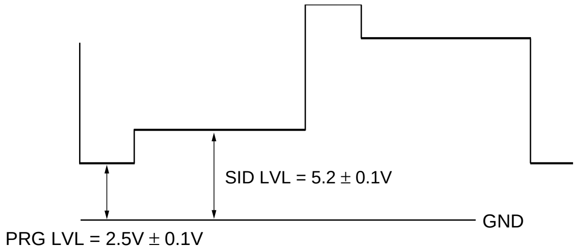
1. Set SID OFST using the ↑ and ↓ keys after completing 4-3-1.
2. Adjust SID OFST using the ← and → keys so that the pedestal level of the non-inverted side becomes the following voltage.
   From pedestal to GND=2.5V ± 0.05V

3-3-3. SID LVL Adjustments

1. Connect the oscilloscope to TP5816.
2. Set SID LVL using the → and ↓ keys and adjust using the ← and → keys so that SID LVL becomes the following voltage.

3-3-4. PRG LVL Adjustment

1. Set PRG LVL using the ↑ and ↓ keys and adjust using the ← and → keys so that PRG LVL becomes the following voltage.
2. Disconnect the probe of the oscilloscope.



3-3-5. R VCOM Adjustments

Turn off the menu using the STATUS OFF during adjustments. (No shield is required.)

1. Set R VCOM and check the 1 line ON/OFF signal.
2. Adjust the ← and → keys to minimize the flicker.

3-3-6. G VCOM Adjustments

1. Set G VCOM and check the 1 line ON/OFF signal.
2. Adjust the ← and → keys to minimize the flicker.

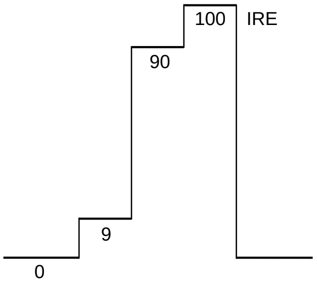
3-3-7. B VCOM Adjustment

1. Set B VCOM and check the 1 line ON/OFF signal.
2. Adjust the ← and → keys to minimize the flicker.

3-4. Signal Level Adjustments

3-4-1. RGB Level Checks

1. Set BA MATRIX of Device adjust on the menu, and set 19 ADJ MODE from 0 to 1.
2. Input the XGA BA adjustment signal to the INPUT-A input.
3. Connect the oscilloscope to TP5803 of the C board.
4. Check that 9IRE and 90IRE are not flat.
5. Set the cursor of the oscilloscope to 9IRE and 90IRE.



Adjust GND to the bottom edge in the DC1V range.

INPUT SIGNAL :

3-4-2. Component Level Adjustments

1. Connect the Component signal to INPUT-A, and select COMPONENT at SIGNAL SELECT.
   (15K component 10 step signal Chroma OFF)
2. Set BA MATRIX of Device adjust at the menu.
3. Select 05 SUB BRT, and adjust using the ← and → keys so that the voltage of 10IRE of the oscilloscope matches the cursor at the bottom.
4. Select 01 PICTURE, and adjust using the ← and → keys so that the voltage of 100IRE of the oscilloscope matches the cursor at the top.
5. Set the signal to the component color bar.
   (15K component color bar Chroma ON)
6. Adjust the cursor at the top of the oscilloscope to the bar on the left side bar (white part).
7. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
8. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
9. Set the signal to the 10 step signal, and return the cursor at the top to 100IRE.
10. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.

3-4-3. VIDEO NTSC Level Adjustments

1. Input the NTSC 100% Color bar signal to the VIDEO input, and switch the input to VIDEO.
   BA MATRIX of device adjust of the menu is set.
2. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
3. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
4. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
5. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.

3-4-4. VIDEO PAL Level Adjustments

1. Input the PAL 100% Color bar signal to the VIDEO input.
   BA MATRIX of device adjust on the menu is set.
2. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
3. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
4. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
5. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.

3-4-5. Y/PB/PR Level Adjustments

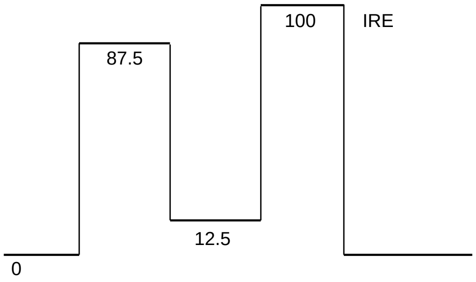
1. Input the HDVS (1080/60i) 100% Color bar (YPbPr) signal to INPUT-A, select INPUT-A, and select Y/PB/PR using SIGNAL SELECT.
2. Set BA MATRIX of Device adjust on the menu.
3. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
4. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
5. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
6. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.

3-4-6. 15KRGB Level Adjustments

1. Input the 15K RGB 100% Color bar signal to INPUT-A, select INPUT-A, and select RGB using SIGNAL SELECT.
2. Set BA MATRIX on Device adjust on the menu.
3. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
4. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
5. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
6. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.

3-4-7. W/B HIGH Adjustments

1. Input the W/B HIGH adjustment signal to INPUT-A, and connect an oscilloscope to TP5803.



2. Set BB GAMMA of Device adjust on the menu.
3. Set LEVEL:1, and adjust the cursor at the bottom of the oscilloscope to the same level as the signal.
4. Set LEVEL:7, and adjust the cursor at the top of the oscilloscope to the same level as the signal.
5. Set W/B Adjust HIGH on the menu.
6. Adjust Blue BIAS so that the 12.5IRE part of the W/B HIGH adjustment signal matches the cursor at the bottom of the oscilloscope.
7. Adjust Blue GAIN so that the 87.5IRE part of the W/B HIGH adjustment signal matches the cursor at the top of the oscilloscope.
8. Perform the tracking of (6) and (7).
9. Input the W/B HIGH adjustment signal to INPUT-A, and connect an oscilloscope to TP5605.
10. Set BB GAMMA of Device adjust on the menu.
11. Set LEVEL:1, and adjust the cursor at the bottom of the oscilloscope to the same level as the signal.

12. Set LEVEL:7, and adjust the cursor at the top of the oscilloscope to the same level as the signal.
13. Set WB Adjust HIGH on the menu.
14. Adjust Green BIAS so that the 12.5IRE part of the W/B HIGH adjustment signal matches the cursor at the bottom of the oscilloscope.
15. Adjust Green GAIN so that the 87.5IRE part of the W/B HIGH adjustment signal matches the cursor at the top of the oscilloscope.
16. Perform the tracking of (14) and (15).

Adjust GND to the bottom edge in the DC1V range.
INPUT SIGNAL :

17. Input the W/B HIGH adjustment signal to INPUT-A, and connect an oscilloscope to TP5819.
18. Set BB GAMMA of Device adjust on the menu.
19. Set LEVEL:1, and adjust the cursor at the bottom of the oscilloscope to the same level as the signal.
20. Set LEVEL:7, and adjust the cursor at the top of the oscilloscope to the same level as the signal.
21. Set WB Adjust HIGH on the menu.
22. Adjust Red BIAS so that the 12.5IRE part of the W/B HIGH adjustment signal matches the cursor at the bottom of the oscilloscope.
23. Adjust Red GAIN so that the 87.5IRE part of the W/B HIGH adjustment signal matches the cursor at the top of the oscilloscope.
24. Perform the tracking of 22 and 23.
25. Select SAVE TO MEMORY at the W/B ADJUST page of the menu, press ENTER to save the data.
26. Set Device adjust on the menu, select BA MATRIX, and return the 19 ADJ MODE from 1 to 0.
27. Press the ENTER key to select SAVE TO MEMORY of the menu, and press ENTER key again to save the data.

3-5. Adjustments in Replacement of Prism

After replacement of the prism, set the factory mode, and perform the following adjustment.

3-5-1. VCOM Adjustment

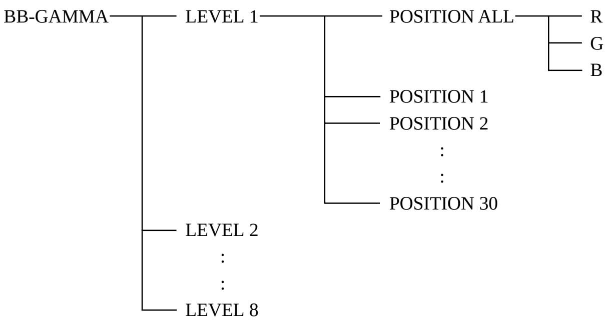
The bottom most menu item on the main menu is the Device Adjustment Menu. Set this menu and select “C-P DRV.” Perform V COM adjustments for each of the item “V COM/R,” “V COM/G,” and “V COM/B.”
In the above mode, as the built-in test pattern will be output, adjust so that flicker is minimum throughout the whole screen.

3-5-2. Polarization Plate Adjustment

Press the PIC: MUTING Key
Pressing this key darkens the entire screen.
If the menu appears at this time, press the MENU key to make it disappear from the screen.

3-5-3. 3Dγ Adjustment (Outline)

The principle of 3Dγ is described before the adjustment of 3Dγ.
3Dγ is like a function which can individually adjust W/B at a total of 180 points brightness 9 levels, horizontal direction 6 points, vertical direction 5 points (9*6*5=270 points).
So altogether 540 adjustments (270*3 (RGB)=810) will be required, which is in practice not possible. The following describes a simpler method.
First the “BB-GAMMA” menu consists of the following hierarchy.



When adjusting a certain LEVEL, automatically the internal signal (flat field) of that level will be displayed.

3-5-4. 3Dγ Adjustments

1. First input “BB-GAMMA.”
2. Set LEVEL to 1.
3. Study the uniformity of the whole screen, and locate the areas where uniformity is poor.
4. Changing “POSITION” to 1, 2, or 3 will display the cursor. The position of the cursor is the position which will be adjusted.
   Move the cursor to the area with poor uniformity.
5. Move “R” and “B” up and down, and adjust so that the uniformity is the same as the other areas.
6. Set LEVEL 2.
7. Like steps 3, 4, and 5, adjust the areas with poor uniformity.
8. Adjust up to LEVEL 7.
9. Study the test pattern from LEVEL 1 to LEVEL 7, and if no problems, return to the first hierarchy, adjust the device, and save the data in SAVE TO MEMORY.

Precautions:

1. Basically adjust RED and BLUE only without changing GREEN.
2. Do not change POSITION ALL.
3. Do not adjust LEVEL 0 and LEVEL 8.
4. To set back factory settings should adjustments fail, skip “SAVE TO MEMORY,” press the STANDBY key, and turn off the power. All the adjusted data will be set back to factory settings.
   Factory settings cannot be set back however if “SAVE TO MEMORY” has already been implemented. So check the picture quality carefully prior to implementing “SAVE TO MEMORY.”
5. For zoom lens, the uniformity will change slightly according to the zoom position.
   As uniformity will change slightly according to the F number of the lens, perform the adjustments on the projection system under the normal using conditions.
6. Do not change other items in the Device Adjust Menu.
   The device adjust menu contains important parameters for machine operations.
   Unnecessary operations will result in “no image” and “abnormal image.”
   “Factory reset” cannot be performed on device adjust menu items.
   (Implementing SAVE TO MEMORY will completely overwrite the data.)
   Do not change data unnecessarily.

The 3D Gamma data load.

The 3D Gamma on the accessory floppy disk must be loaded in the main unit when the optical unit service assy or prism block assy is replaced.
Use the "Quick Access" custom application software, to load this from the PC via the RS-232.
Obtain "Quick Access" from the home page of this service.

3-5-5. W/B LOW Adjustments

1. Switch the INPUT-A input signal to the VGA 80 IRE flat field signal, and set to COLOR TEMP LOW. Set GAIN R, G, B and BIAS R, G, B to the same value as the HIGH data.
2. Adjust the W/B adjust BIAS G and BIAS B data so that the white chrominance satisfies the following specification.
   80 IRE White Chrominance
   <Specification> (x, y)=(0.313 ± 0.003, 0.329 ±0.003)
3. Switch the INPUT-A input signal to the VGA 20 IRE flat field signal.
4. Adjust the W/B adjust BIAS G and BIAS B data so that the chrominance of white section satisfies the following specification.
   20 IRE White Chrominance
   <Specification> (x, y)=(0.313 ± 0.003, 0.329 ± 0.003)
5. Switch the INPUT-A input signal to the VGA 80 IRE flat field signal.
6. Adjust the W/B adjust BIAS G and BIAS B data so that the white chrominance satisfies the following specification.
   80 IRE White Chrominance
   <Specification> (x, y)=(0.313 ± 0.003, 0.329 ± 0.003)
7. Repeat steps 4 to 7 to perform tracking so that the specification is satisfied.3. Perform tracking so that the following specification is satisfied.
   Adjust G and B without changing Red GAIN.
   80 IRE White Chrominance
   <Specification> (x, y)=(0.300 ± 0.003, 0.330 ± 0.003)

3-6. M Board Adjustments

3-6-1. Current Detection 0 Set Adjustment

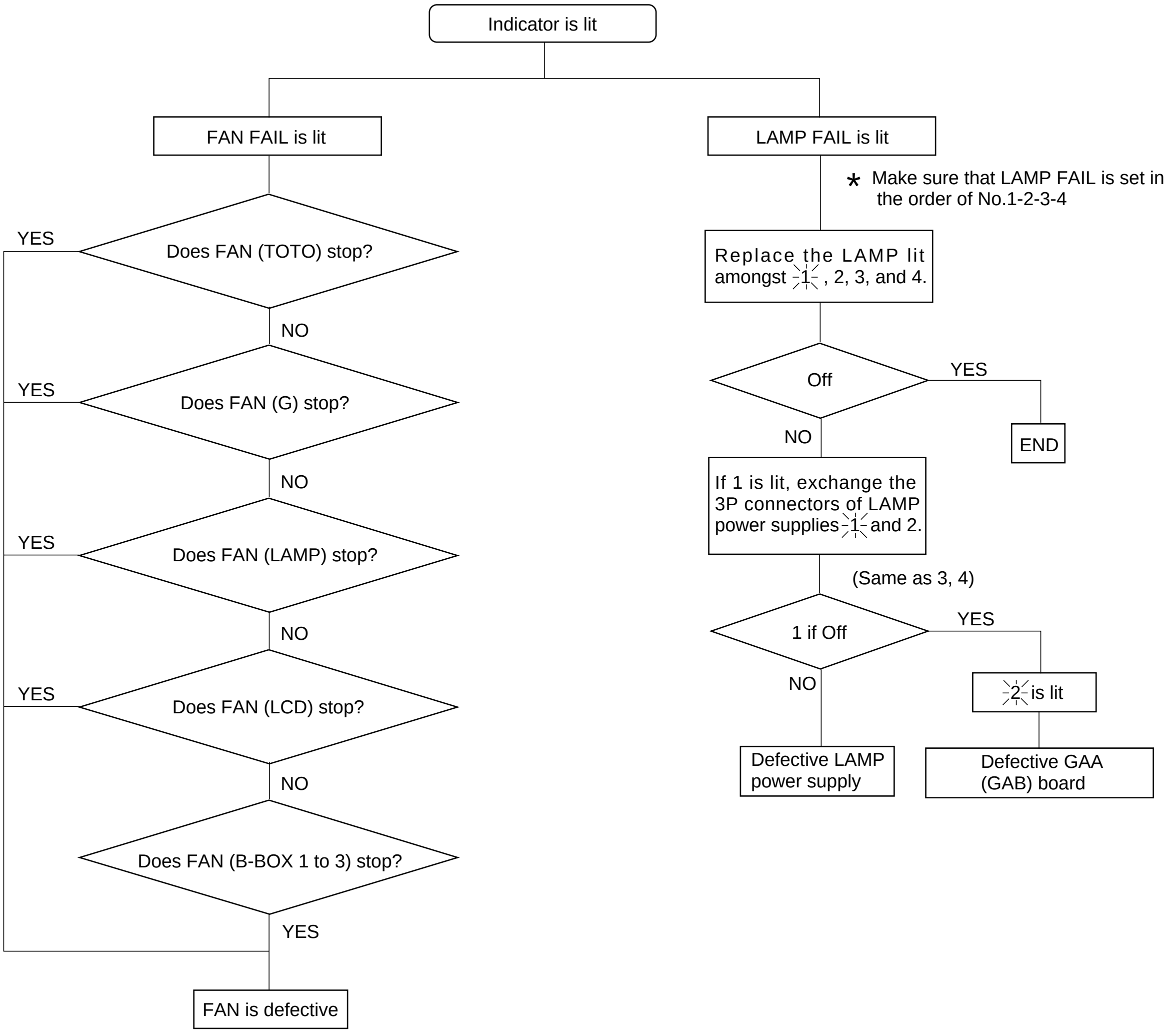
Set CONTROL-S IN to no load.
Adjust RV2901 so that TP2901 (0 set) becomes 30 mV ± 10 mV.

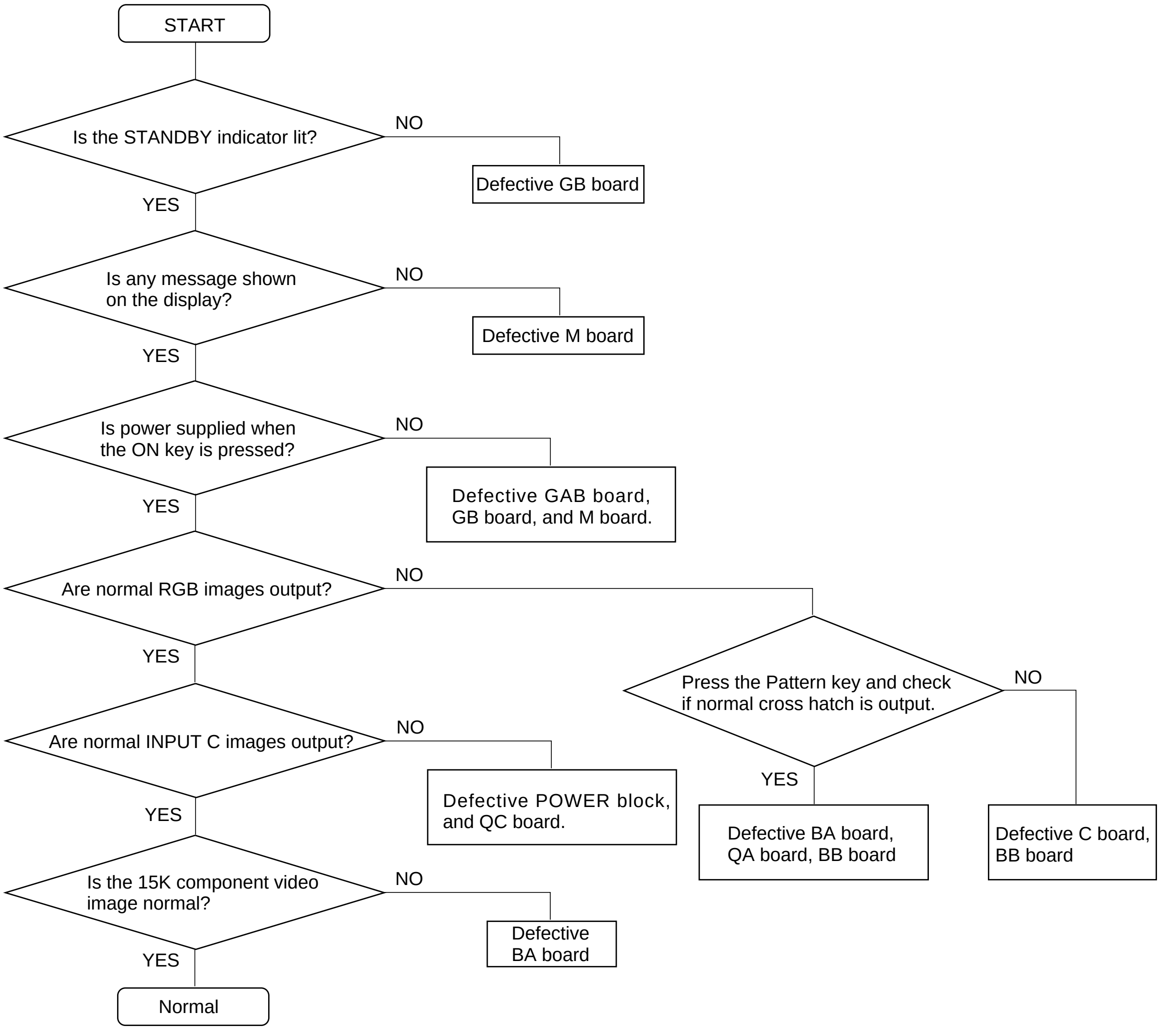
gM

Section 4
Troubleshooting

As most of the boards of VPL-FE110U/FE110M are of the slot type, the following are flowcharts for checking “which board is defective” the fastest.
The flowcharts show highly probable malfunctions, so that may not be useful for all defects.
Where more than 2 defective boards are indicated, the first board is more likely to become defective.

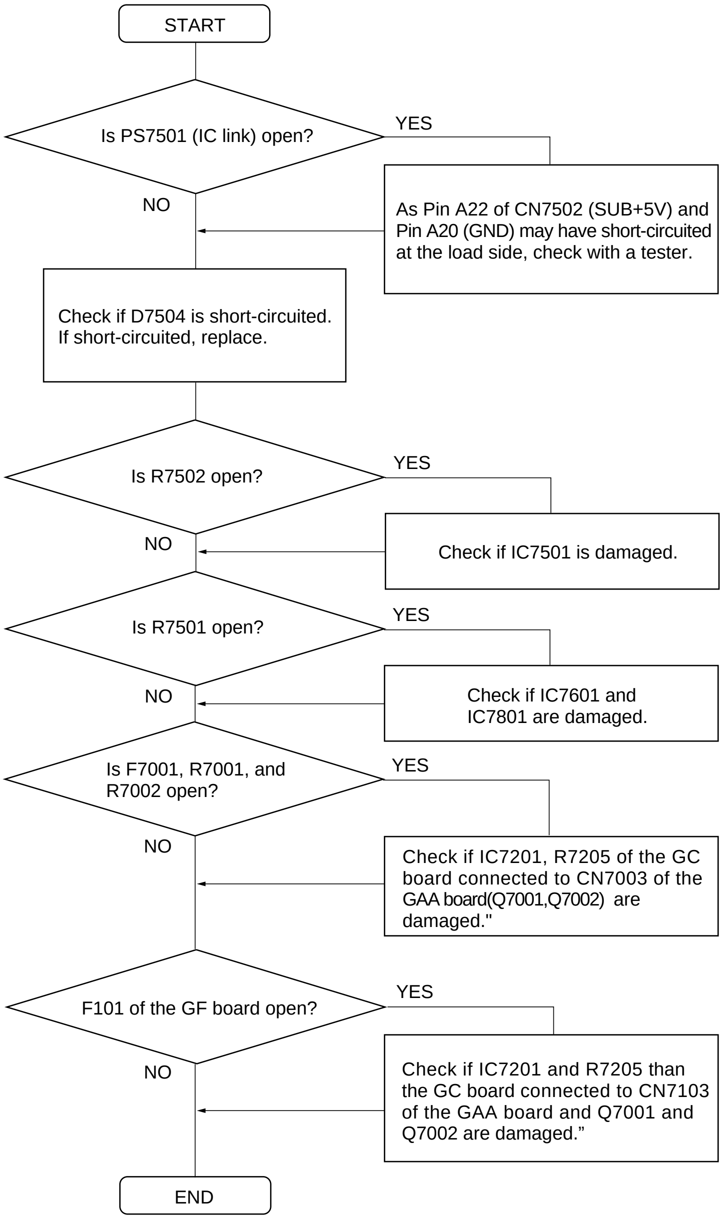
4-1. Indicator Section Troubleshooting


Indicator is lit
FAN FAIL is lit
LAMP FAIL is lit
* Make sure that LAMP FAIL is set in the order of No.1-2-3-4
YES
Does FAN (TOTO) stop?
NO
YES
Does FAN (G) stop?
NO
YES
Does FAN (LAMP) stop?
NO
YES
Does FAN (LCD) stop?
NO
Does FAN (B-BOX 1 to 3) stop?
YES
FAN is defective
Replace the LAMP lit amongst 1 , 2, 3, and 4.
Off
YES
END
NO
If 1 is lit, exchange the 3P connectors of LAMP power supplies 1 and 2.
(Same as 3, 4)
1 if Off
YES
NO
2 is lit
Defective LAMP power supply
Defective GAA (GAB) board


START
Is the STANDBY indicator lit?
NO
Defective GB board
YES
Is any message shown on the display?
NO
Defective M board
YES
Is power supplied when the ON key is pressed?
NO
Defective GAB board, GB board, and M board.
YES
Are normal RGB images output?
NO
Press the Pattern key and check if normal cross hatch is output.
NO
Defective C board, BB board
YES
Defective BA board, QA board, BB board
YES
Are normal INPUT C images output?
NO
Defective POWER block, and QC board.
YES
Is the 15K component video image normal?
NO
Defective BA board
YES
Normal

4-2. Power Supply Section Troubleshooting

(1) If the unit does not set into the standby state even when connected to an AC outlet.
(The standby LED on the control panel does not light up.)



Is PS7501 (IC link) open?

As Pin A22 of CN7502 (SUB+5V) and Pin A20 (GND) may have short-circuited at the load side, check with a tester.

Check if D7504 is short-circuited. If short-circuited, replace.

Is R7502 open?

Check if IC7501 is damaged.

Is R7501 open?

Check if IC7601 and IC7801 are damaged.

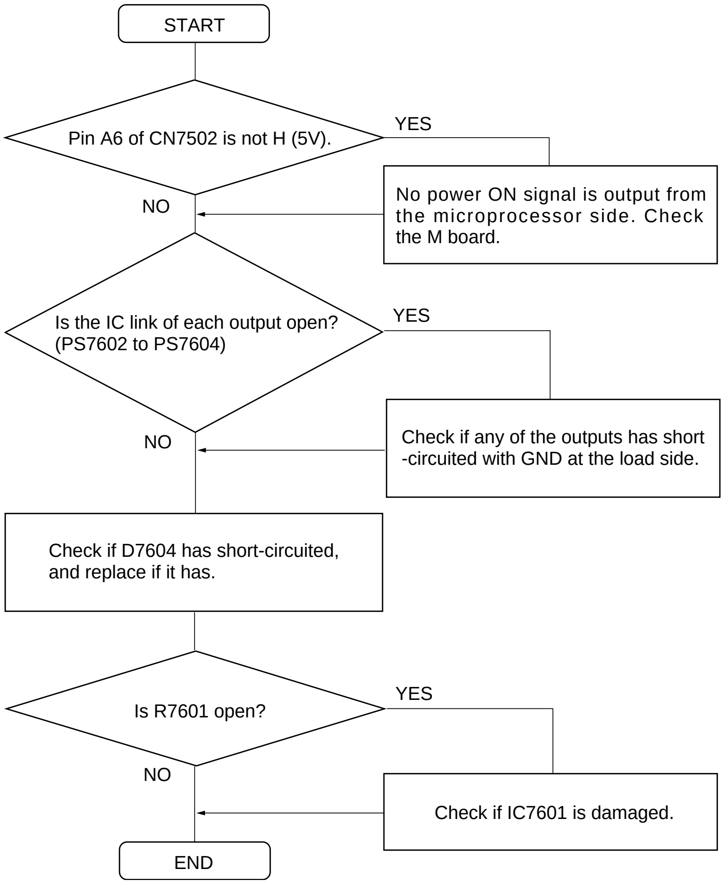
Is F7001, R7001, and R7002 open?

Check if IC7201, R7205 of the GC board connected to CN7003 of the GAA board(Q7001,Q7002) are damaged."

F101 of the GF board open?

Check if IC7201 and R7205 than the GC board connected to CN7103 of the GAA board and Q7001 and Q7002 are damaged.”

(2) The standby power is output, but no power from the analog circuit (+6.2V, 13.5V, 17V) is output even if the power is turned ON.


START
Pin A6 of CN7502 is not H (5V).
YES
No power ON signal is output from the microprocessor side. Check the M board.
NO
Is the IC link of each output open? (PS7602 to PS7604)
YES
Check if any of the outputs has short -circuited with GND at the load side.
NO
Check if D7604 has short-circuited, and replace if it has.
Is R7601 open?
YES
Check if IC7601 is damaged.
NO
END

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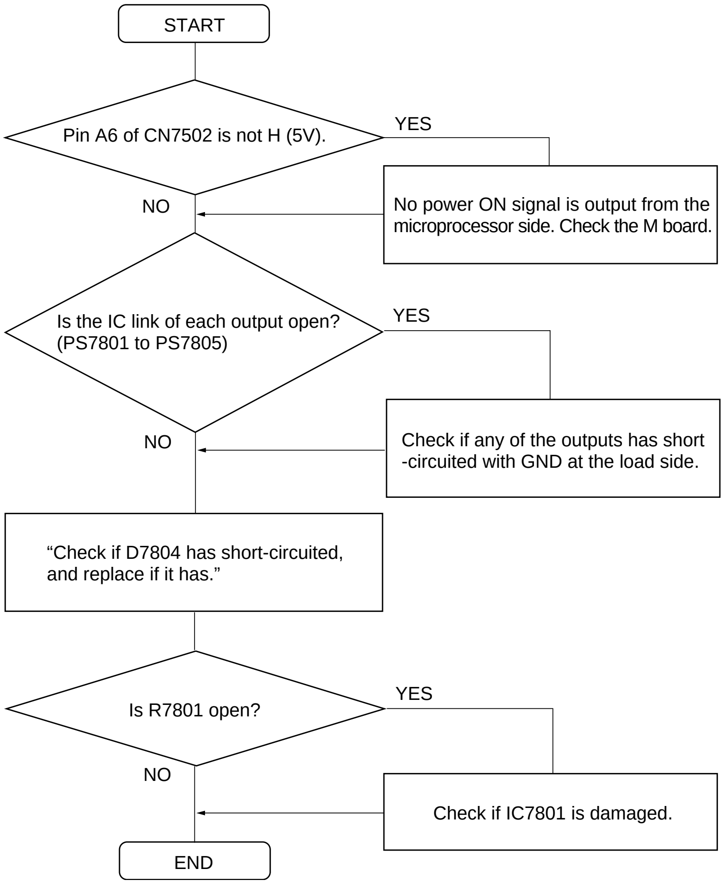
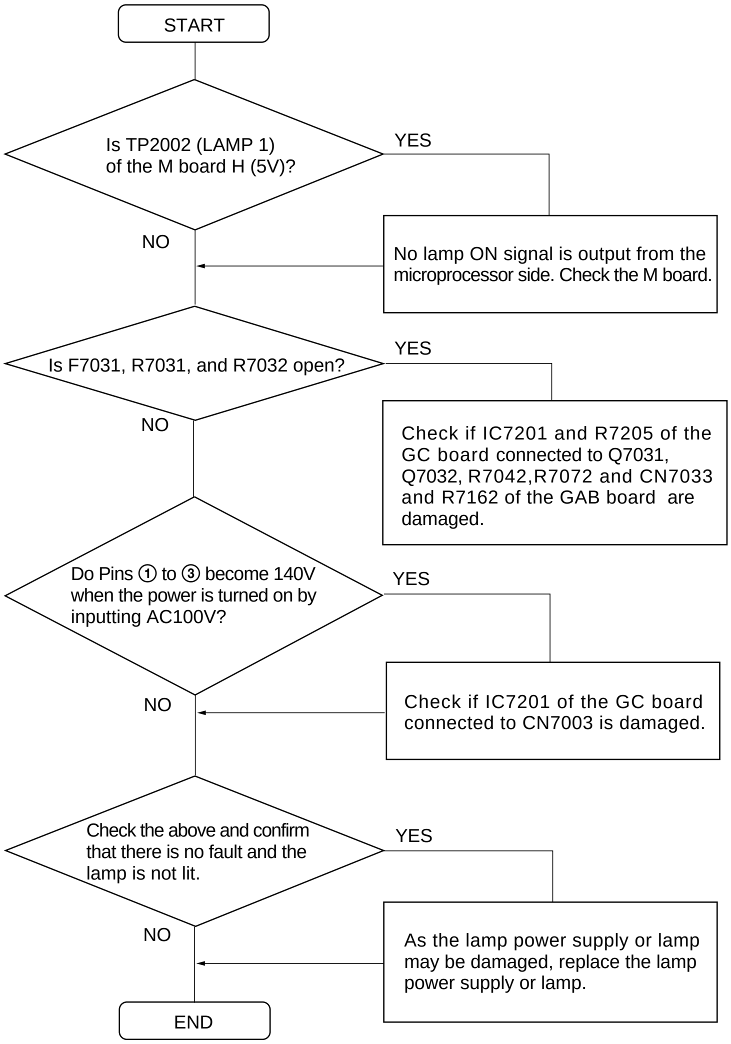
(3) The standby power is output, but no digital circuit power (+3.3V, +5.2V, —5.2V, —2V, AUDIO+B is output even when the power is ON.


START
Pin A6 of CN7502 is not H (5V).
YES
No power ON signal is output from the microprocessor side. Check the M board.
NO
Is the IC link of each output open? (PS7801 to PS7805)
YES
Check if any of the outputs has short -circuited with GND at the load side.
NO
“Check if D7804 has short-circuited, and replace if it has.”
Is R7801 open?
YES
Check if IC7801 is damaged.
NO
END

(4) The lamp does not light up although the standby, analog power, and digital power are output.
(This unit has four circuits each for the lamp power supply and active filter for the lamp power supply. As all of these circuits are the same, only the circuit of lamp 1 will be described here.)


START
Is TP2002 (LAMP 1) of the M board H (5V)?
YES
No lamp ON signal is output from the microprocessor side. Check the M board.
NO
Is F7031, R7031, and R7032 open?
YES
Check if IC7201 and R7205 of the GC board connected to Q7031, Q7032, R7042,R7072 and CN7033 and R7162 of the GAB board are damaged.
NO
Do Pins ① to ③ become 140V when the power is turned on by inputting AC100V?
YES
Check if IC7201 of the GC board connected to CN7003 is damaged.
NO
Check the above and confirm that there is no fault and the lamp is not lit.
YES
As the lamp power supply or lamp may be damaged, replace the lamp power supply or lamp.
NO
END

Section 5
Theory of Operation

5-1.GAA,GAB and GC Boards

The GAA board has 3 active filter circuits and the GAB board has 2. As all of these circuits are the same, only 1 circuit of the GAA board is described here.
This circuit can broadly be divided into the following function blocks.

1. Inrush current control block
2. Active filter block
3. Smooth block

5-1-1. Inrush Current Suppressing Block

5-1-1-1. Functions

Controls the inrush current flowing to C7007 of the smoothing capacitor when the AC cord is connected.

5-1-1-2. Operations

When the AC cord is connected, first the current flows to R7001 and R7002. The current is limited to 30.3 A (when 240V is input) by this 11.2Ω (5.6Ω x 2) resistance.
When the active filter starts to operate after this, the D7002 gate is turned ON by the voltage difference between the + side of C7007 and cathode side of D7002, and current is supplied to D7002.

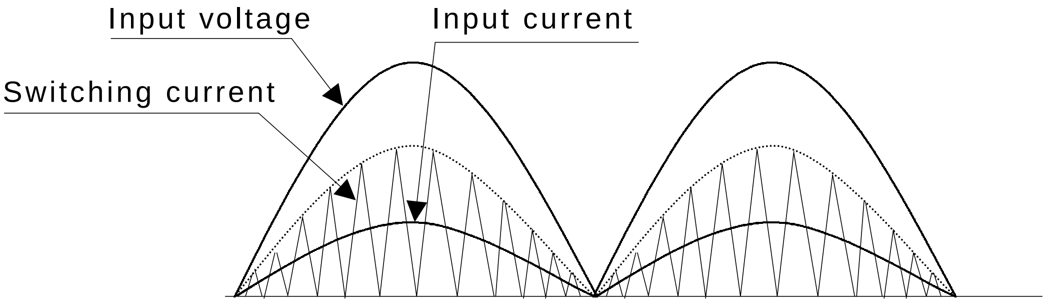
5-1-2. Active Filter

5-1-2-1. Functions

Circuit which is incorporated to deal with the harmonic current restriction.
The pulse current input to C7001 of the smoothing capacitor is changed to sine wave with the same phase as the input voltage to control secondary harmonic components.

5-1-2-2. Operations

When power is supplied from the AC cord, the voltage is rectified and smoothed by D7001 and C7007, and output from CN7003.
After this, the standby power of the GB board (circuit power) rises, and +18V is supplied to IC7201 of the GC board from Pin (A23) of CN7001.
When Pin (A25) (AF ON/OFF) of CN7001 is High, IC7201 of the GC board starts to operate, and a rectangular wave of about 76 kHz is output from Pin ⑧.
This square wave is input to gates Q7001 and Q7002 to switch FET.
When FET is ON, the current is passed through L7001, GND (PRIME), and then L7001. The current increases proportionately to the time, and energy is accumulated in L7001.
(At this time, no current is supplied to the output via D7007.)
Next, when FET is turned OFF, counter electromotive force is generated at L7001, and current is passed through D7007 from L7001. The current decreases proportionately to the time.
By repeating the above process, an input current flows in the since wave as if there were a pure resistance load, even if a large capacitor is on the load.
When the voltage at the anode side of D7007 is set to Vo, the output voltage is 0V when FET is ON, and Vo=Vi+VL (Vi is the input voltage, VL is the voltage at the two ends of L7001) when FET is OFF. The output voltage is controlled by the increase/decrease at ON time, and is set to about 330V.



5-1-3. Smoothing Block

5-1-3-1. Functions

The pulse voltage of the rectification diode or active filter output is converted to direct current voltage.

5-1-3-2. Operations

C7007 is a smoothing capacitor.
The input pulse voltage rectified by D7001 is smoothed to direct current (DC141V for AC100V input voltage and DC311V at AC220V) at standby, and is output from CN7003.
At POWER ON, the active filter switching output voltage is smoothed, and approximately DC330V is output from CN7002.

GB board is the power supply of the signal block circuit. It is broadly divided into the following three function blocks.

1. Standby power supply
2. Analog power supply
3. Digital power supply

5-2.GB Board

The GB Board supplies power for the signal system.
It offers the following three functions;

1.Standby Power Supply
2.ANALOG Power Supply
3.DIGITAL Power Supply

5-2-1. Standby Power Supply

5-2-1-1. Function

Generates the SUB5V power supply for the microprocessor and LED at standby, and power supply VCC (+18V) of the active filter control of the GC board.

5-2-1-2. Operations

When power is supplied from CN7501, IC7501 (switching IC) starts to operate, and a switching current starts to flow between Pins ⑦ and ⑧ of T7501. As a result, switching voltage is output between Pins ②, ③, and Pins ④, ⑤ of T7501.
This voltage is rectified and smoothed by D7508, C7509, L7501 and C7512, the output voltage is detected by IC7502 (R7515, R7516, R7517, and R7518 are voltage detection resistors), and feedback is imposed on IC7501 so that it becomes 5.0V.
At this time, voltage is also generated between Pins ⑪ and ⑫ of T7501, rectified and smoothed by D7505 and C7506, regulated to about 21V by IC7503, and supplied to IC7201 of the GC board.

5-2-2. Analog Power Supply

5-2-2-1. Functions

Generates the analog power supplies 6.2V, 13.5V, and 17V of the signal system circuit.

5-2-2-2. Operations

When POWER turns ON, Pin (A6) (POWER CONT) of CN7502 becomes “H”.
As a result, Q7503 is turned ON via PH7502, and Q7501 goes OFF. When Q7501 goes OFF, the Control pin of IC7601 (switching IC) is released from GND, and IC7601 starts to operate. Switching current flows between Pins ② and ③ of T7601, and voltage is output to each pin at the secondary side. 13.5V (output of Pins ⑬, ⑭, and ⑮ of T7601) of this output is voltage-detected by IC7602, to impose feedback on the Control pin of IC7601 (switching IC).
The 6.2V and 17V outputs (R7606, R7607, R7608, and R7609 are voltage detection resistors) are determined by the turn ratio of T7601.

5-2-3. Digital Power Supply

5-2-3-1. Function

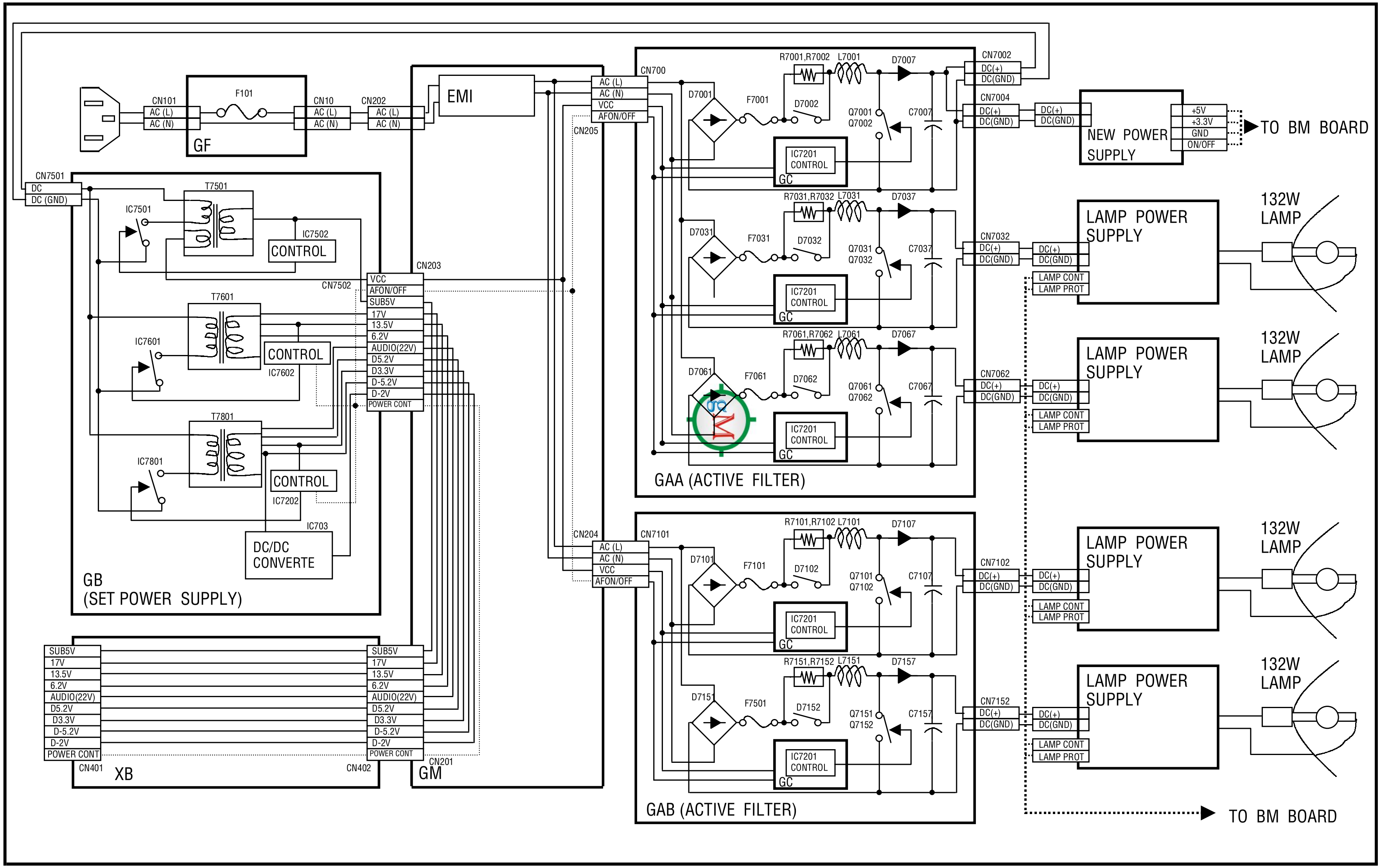
Generates the digital power supply +3.3V, +5.2V, –2V, –5.2V digital power supplies for the signal block circuit and the AUDIO+B power supply for AUDIO.

5-2-3-2. Operations

When POWER turns ON, Pin (A6) (POWER CONT) of CN7502 becomes “H”.
As a result, Q7504 is turned ON via PH7502, and Q7502 goes OFF. When Q7502 goes OFF, the Control pin of IC7801 (switching IC) is released from GND, and IC7801 starts to operate. Switching current flows between Pins ② and ③ of T7801, and voltage is output to each pin at the secondary side. +3.3V (output of Pins ⑬ and ⑭ of T7801) of this output is voltage-detected by IC7802, to impose feedback on the Control pin of IC7801 (switching IC).
The +5.2V, –5.2V, and AUDIO+B outputs (R7806, R7807, R7808, and R7809 are voltage detection resistors) are determined by the turn ratio of T7601.

The -2V is generated by the DC/DC-converting -5.2V output by the IC7803 switching regulator (R7813, R8147, and R7815 are voltage detection resistors which impose feedback on Pin ② of IC7803).

POWER SUPPLY BLOK DIAGRAM


CN101
AC (L)
AC (N)
F101
GF
CN10
AC (L)
AC (N)
CN202
AC (L)
AC (N)
EMI
CN7501
DC
DC (GND)
T7501
IC7501
IC7502
CONTROL
T7601
IC7601
CONTROL
IC7602
T7801
IC7801
CONTROL
IC7202
IC703
DC/DC
CONVERTE
GB
(SET POWER SUPPLY)
CN7502
CN203
VCC
AFON/OFF
SUB5V
17V
13.5V
6.2V
AUDIO(22V)
D5.2V
D3.3V
D-5.2V
D-2V
POWER CONT
CN205
CN204
CN201
GM
CN402
CN401
XB
CN700
AC (L)
AC (N)
VCC
AFON/OFF
D7001
F7001
R7001,R7002
L7001
D7002
D7007
Q7001
Q7002
C7007
IC7201
CONTROL
GC
D7031
F7031
R7031,R7032
L7031
D7032
D7037
Q7031
Q7032
C7037
D7061
F7061
R7061,R7062
L7061
D7062
D7067
Q7061
Q7062
C7067
GAA (ACTIVE FILTER)
CN7101
D7101
F7101
R7101,R7102
L7101
D7102
D7107
Q7101
Q7102
C7107
D7151
F7501
R7151,R7152
L7151
D7152
D7157
Q7151
Q7152
C7157
GAB (ACTIVE FILTER)
CN7002
DC(+)
DC(GND)
CN7004
CN7032
CN7062
CN7102
CN7152
NEW POWER
SUPPLY
+5V
+3.3V
GND
ON/OFF
TO BM BOARD
LAMP POWER
SUPPLY
LAMP CONT
LAMP PROT
132W
LAMP
TO BM BOARD

5-3.QC BOARD

The QC board is a small microcomputer board and runs Windows CE as the operating system (OS).
The CPU is loaded in a previously installed card board, and exchanges data with the QC board (mother board) by way of the CN9004.
OS, application software and serial number information is written in the CompactFlash card installed in the CN9008.
A portion of the CompactFlash card is setup as a memory for the user.
Video output from the QC board is set as analog or LVDS by the SW9001 but the FE110 only uses an analog output so no screen appears unless SW4 is on.
At startup, the SW4 (across pins 7 and 8) position is at ON for analog and OFF for LVDS.
The QC board is supplied with 5 volts and 3.3 volts from the power supply. After power-on, the system starts up with the method written in BIOS. The message, “Network Projector” first appears on the screen, and when the OS (operating system) starts up, the initial OS screen appears on the screen.
This system operates only from factory shipping software. It does not operate like an ordinary computer from application software installed by the user.

PC Board Repair

(1) When QC board is defective :

Insert the original CompactFlash card into the CN9008, in a QC board obtained from service stock.

(2) When CompactFlash card is defective :

the CompactFlash (CF) card Assy from service stock does not have a serial number, so this must be written onto the card.
Please consult the service department on how to write the serial number.

(3) When the card board is defective :

After replacing this with a card board from service stock, and the system first starts up, the message, “Backup Battery Very Low” appears on the Input C screen. Wait about one minute and the OS will then start up, so click the clock on the lower right of the screen to show the property and make the time settings.

(4) When “Backup Battery Very Low” appears:

Replace the battery if the message, “Backup Battery Very Low” appears while using the set.
Remove the QC board from the set, and also remove the card board.
After replacing the battery, reinstall the card board to its original position and tighten the 3 machine screws.
Reinstall the QC board back into the set.
Next, make the time settings again, just as when the card board was defective in (3) above.

(5) When replacing the PC card connector: (replacing the rails)

The PC card connector consists of a surface mounted connector, and 2 rails.
Remove the card board from the QC board.
Remove the 4 machine screws from the PC card connector and pull on the rails to remove them from the QC board.
Install the PC card connector and tighten the 4 machine screws.
Install the card board and tighten the 3 machine screws.
Reinstall the QC board into the set, and make the time settings again, just as when the card board was defective in (3) above.

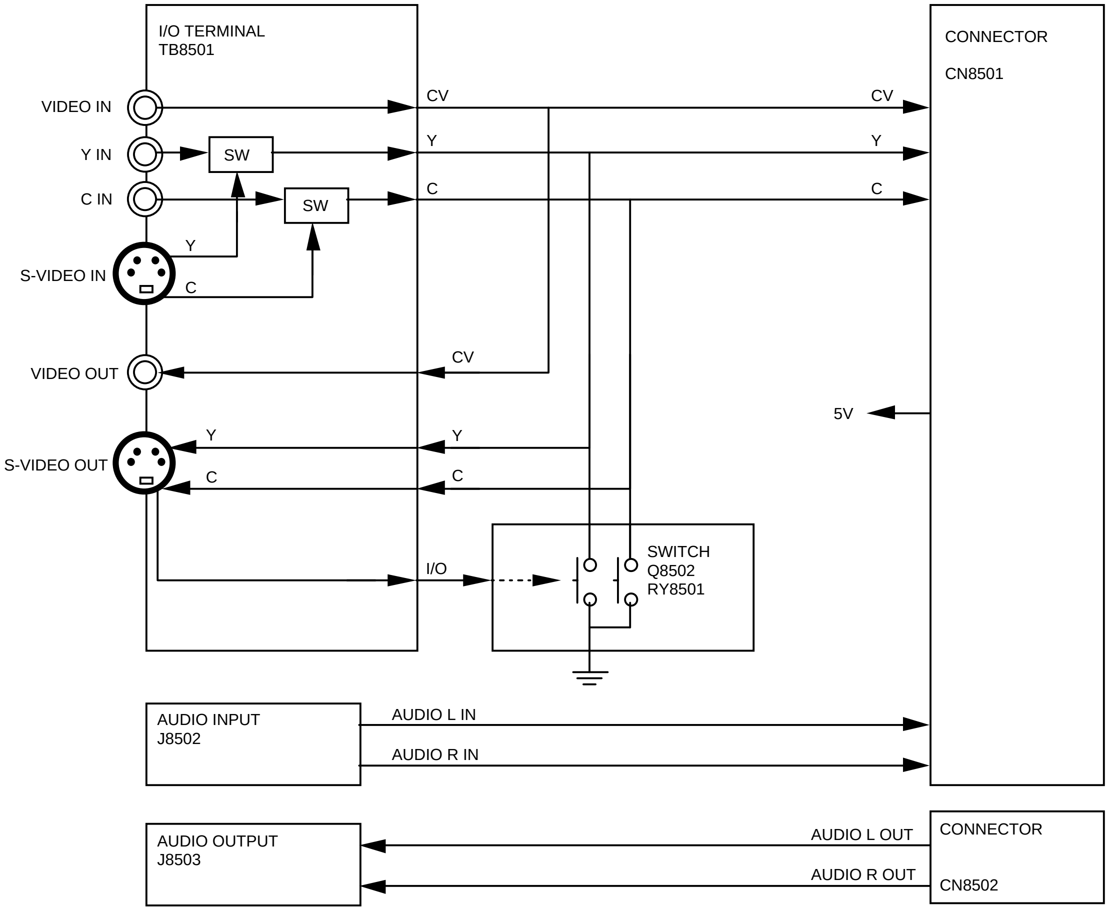
5-4. QB Board

The QB board is mounted with the video input/output/AUDIO input terminal of the VIDEO channel and the variable AUDIO
output terminal.
The circuit block turns ON/OFF termination during image buffering and S VIDEO output.
Pin ⑪ of CN8501 serves as the VIDEO board present/absent discrimination output, and outputs LOW when the VIDEO input board is present. In models for AEP destinations, the QB board assembly without VIDEO input is incorporated, and output is HIGH.

The signal input from the VIDEO IN terminal is output from Pin ⑤ of CN8501 via the Q8504 buffer.
This signal is linked to the VIDEO OUT terminal, and when BNC is connected to the VIDEO OUT terminal, the termination resistor goes OFF. The Y/C signal input from the SIN terminal is output from Pins ① and ③ of CN8501 via Q8501 and Q8503 buffers. The Y/C signal is connected to the S OUT terminal. When the S cable is connected to the S OUT terminal, RY8502 is switched, and the termination resistor goes OFF. When the BNC terminal is inserted into the Y IN and C IN terminals, these terminals will have priority over the S IN terminal.

The AUDIO L/R input from J8502 is output from Pins ⑦ and ⑨ of CN8501.
The AUDIO L/R output is input to Pins ① and ③ of CN8502 and output from J8503.

QB BOARD BLOCK DIAGRAM


I/O TERMINAL
TB8501
VIDEO IN
Y IN
C IN
S-VIDEO IN
SW
SW
Y
C
CV
Y
C
VIDEO OUT
CV
S-VIDEO OUT
Y
C
Y
C
I/O
SWITCH
Q8502
RY8501
CONNECTOR
CN8501
CV
Y
C
5V
AUDIO INPUT
J8502
AUDIO L IN
AUDIO R IN
AUDIO OUTPUT
J8503
AUDIO L OUT
AUDIO R OUT
CONNECTOR
CN8502

5-5. QA Board

The QA circuit performs switching of the input signals mainly. Specifically, operations are as follows.

1. Video switching block
   Signals from the 4 blocks INPUT-A (Switcher)/B/C, and VIDEO are converted to 3 lines and sent to the BA board.
2. Sync switching block
   Signals from the 3 blocks INPUT-A (Switcher)/B/C are converted to 3 lines (H/C*2, V*1) and sent to the BA board.
3. Audio switcher block
   Signals from the 4 blocks INPUT-A (Switcher)/B/C, and VIDEO are converted to 2 lines and sent to the BC board.

These switching operations are controlled by the HIGH/LOW signal input from the M board, BA board, and INPUT B. There are altogether 9 input pins-Pins (A/B/O ⑳), (A/B/C ㉔), and (C ㉘, ㉙, ㉚) of CN8201.

The 3 video lines are referred to as R (sends RED/R-Y/Pr/ Composite Video signals), G (sends Green/Y), and B (sends Blue/B-Y/Pb/Chroma).

5-5-1. Video Switcher block

5-5-1-1. INPUT-A (Switcher)

The INPUT-A/Switcher signals are input from J8001 and switched with the VIDEO input by IC8206, IC8207, and IC8208.

INPUT-A is switched to INPUT-B/C or vice versa by RY8201, RY8202, and RY8203.

FILTER ON or OFF is selected by RY8204, RY8205, and RY8206 and input to IC8215, IC8206, and IC8217.

FILTER ON can be selected by MENU only when RGB signals with frequencies above SXGA are input. When ON, the signals are passed through the 40 MHz low pass filter, gain controlled by IC8401, IC8402, and IC8403, and returned to RY8204, RY8205, and RY8206.

When FILTER is OFF, the signals are throughed by RY8204, RY8205, and RY8206.

The video signals switched above are 75Ω driven by IC8215, IC8216, and IC8217, and sent to the BA board.

If the input signal type is VIDEO, and the signal is input to COMPOSITE VIDEO, the IC8207 and IC8208 output(s) (Y/ C) will be muted. If Y/C input, the IC8206 output (COMPOSITE VIDEO) is muted. (Crosstalk prevention)

Only for INPUT-A (Switcher), signals will be output to the BA board as well as to the INTERFACE board.

This only applies when INPUT-A (Switcher) is selected, and the output board is inserted in the INPUT-B.

Other than this, signals will be muted by IC8209, IC8210, and IC8211. The output pins are A/B ④, A/B ⑦, and A/B ⑩ of CN8201.

IC8212, IC8213, and IC8214 are 75Ω drivers for these outputs.

5-5-1-2. INPUT-B/C

INPUT-B and INPUT-C are externally switched and signals are input to A/B ⑤, A/B ⑧, and A/B ①.

These signals are switched with the signals from INPUT-A (Switcher) or VIDEO by RY8201, RY8202, and RY8203. Operations hereafter are the same as INPUT-A.

When INPUT-B/C is selected, the signals output from IC8206, IC8207, and IC8208 are muted (crosstalk prevention).

5-5-1-3. VIDEO Channel

The VIDEO channel is input from C6, C9, and C11 of CN8201, and switched with INPUT-A (Switcher) by IC8206, IC8207, and IC8208.

Hereafter, the operations are the same as INPUT-A. However, as only the VIDEO signal will be input, FILTER will not be ON.

If the input is switched to COMPOSITE VIDEO, the IC8207 and IC8208 output(s) (Y/C) will be muted. If Y/C, the IC8206 output (COMPOSITE VIDEO) will be muted. (Crosstalk prevention)

5-5-2. Sync Switcher

The sync signals are input from J8001 for the INPUT-A/ Switcher, and from Pins (C12) and (C13) of CN8201 for INPUT-B/C.

The H SYNC and V SYNC of the INPUT-A/Switcher is shaped to 5Vp-p in the circuits from Q8001/8002 to IC8005 (peak hold and slice). This sync signal shaped and sync signal from INPUT-B/C is passed through IC8008 (buffer), switched by RY8207, and output from Pins (C16) and (C14) of CN8201. The H SYNC signal input from INPUT-A is shaped in the circuits from Q8011 to IC8009 (sync chip clamp & slice).

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Although this assumes that the following occurs, signals will be output to the BA board via Pin B15 of CN8201 regardless of the signal frequency;

a. Composite video is input to the H/C SYNC line
b. Tertiary SYNC is input by HDVS to the H/C SYNC line

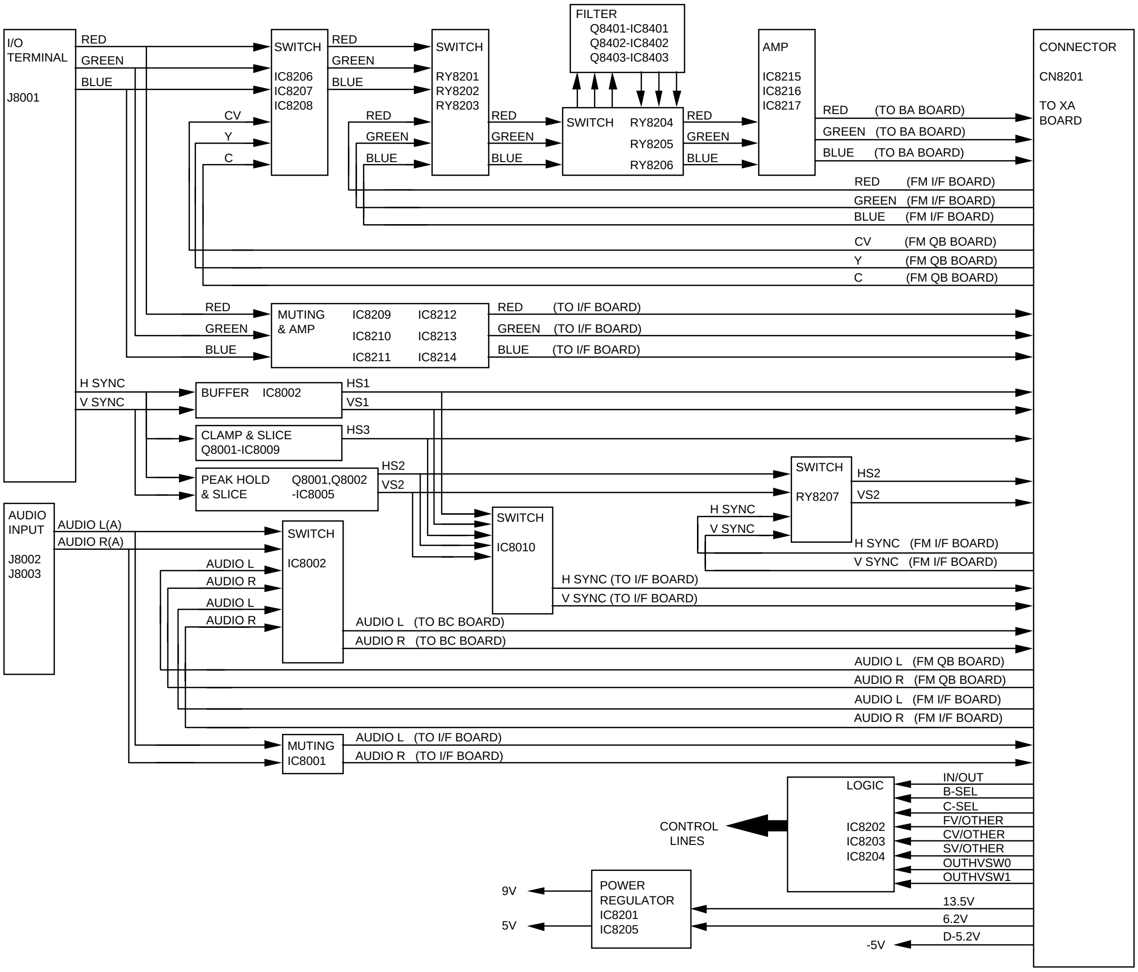
Signals input by INPUT-A (Switcher) are sync output to the INTERFACE board in addition to the BA board.
This only applies when INPUT-A (Switcher) is selected, and the output board is inserted in the INPUT-B.
Other than this, signals will be muted by IC8010. The output pins are A12 and A13 of CN8201.

5-5-3. Audio Switcher

The signals from INPUT-A (Switcher)/B/C, and VIDEO are sent to the BC board after conversion to 2 lines.
The audio signals are input from J8002 and J8003 for INPUT-A/Switcher, from Pins A1 and A2 of CN8201 for INPUT-B/C, and from Pins C1 and C2 of CN8201 for VIDEO channel. These signals are switched by IC8002, and output from Pins A32 and C32 of CN8201 via the buffer IC8004.

Signals input by INPUT-A (Switcher) are audio output to the INTERFACE board in addition to the BC board.
This only applies when INPUT-A (Switcher) is selected, and the output board is inserted in the INPUT-B.
Other than this, signals will be muted by IC8001. The output

QA BOARD BLOCK DIAGRAM


I/O TERMINAL
J8001
RED
GREEN
BLUE
SWITCH
IC8206
IC8207
IC8208
CV
Y
C
SWITCH
RY8201
RY8202
RY8203
FILTER
Q8401-IC8401
Q8402-IC8402
Q8403-IC8403
SWITCH
RY8204
RY8205
RY8206
AMP
IC8215
IC8216
IC8217
RED (TO BA BOARD)
GREEN (TO BA BOARD)
BLUE (TO BA BOARD)
CONNECTOR
CN8201
TO XA BOARD
RED (FM I/F BOARD)
GREEN (FM I/F BOARD)
BLUE (FM I/F BOARD)
CV (FM QB BOARD)
Y (FM QB BOARD)
C (FM QB BOARD)
MUTING & AMP
IC8209
IC8210
IC8211
IC8212
IC8213
IC8214
RED (TO I/F BOARD)
GREEN (TO I/F BOARD)
BLUE (TO I/F BOARD)
H SYNC
V SYNC
BUFFER IC8002
HS1
VS1
CLAMP & SLICE
Q8001-IC8009
HS3
PEAK HOLD & SLICE
Q8001,Q8002 -IC8005
HS2
VS2
SWITCH
RY8207
HS2
VS2
H SYNC
V SYNC
H SYNC (FM I/F BOARD)
V SYNC (FM I/F BOARD)
SWITCH
IC8010
H SYNC (TO I/F BOARD)
V SYNC (TO I/F BOARD)
AUDIO INPUT
J8002
J8003
AUDIO L(A)
AUDIO R(A)
SWITCH
IC8002
AUDIO L
AUDIO R
AUDIO L
AUDIO R
AUDIO L (TO BC BOARD)
AUDIO R (TO BC BOARD)
AUDIO L (FM QB BOARD)
AUDIO R (FM QB BOARD)
AUDIO L (FM I/F BOARD)
AUDIO R (FM I/F BOARD)
MUTING
IC8001
AUDIO L (TO I/F BOARD)
AUDIO R (TO I/F BOARD)
LOGIC
IC8202
IC8203
IC8204
CONTROL LINES
IN/OUT
B-SEL
C-SEL
FV/OTHER
CV/OTHER
SV/OTHER
OUTHVSW0
OUTHVSW1
POWER REGULATOR
IC8201
IC8205
9V
5V
13.5V
6.2V
D-5.2V
-5V

5-6. BA Board

The BA board performs the following operations.

1. VIDEO (C-VIDEO, Y/C, component), HDTV (Y Pb Pr) video processing
2. A/D conversion
3. Sync separation

5-6-1. Functions of Main ICs

5-6-1-1. CXD2024 (IC1104), Digital Comb Filter

This IC performs two dimensional processing digital Y/C separation for PAL.

The operation clock is the clock (fsc) output from Pin ㉓ of TDA9141 (IC1402) multiplied by 4 times (4fsc) by IC1103 (NJM2240M) and is input to Pin ⑪. The VIDEO signal input from Pin ㉕ is digitally processed by this clock, after which the Y signal is output from Pin ㉛ and the C signal is output from Pin ㊴.

5-6-1-2.μPD64081 (IC1254), 3-Dimensional Comb Filter

This IC performs three dimensional processing digital Y/C separation for NTSC3.58.

The reference clock is obtained by using the X'tal connected between Pins ㉚ and ㉛ to generate fsc. It is output to the Pin ㊼ FSCO terminal, and input to the Pin ㊿ FSCI terminal via the buffer. As the internal Y-ADC circuit cannot be used in this IC, the VIDEO signal (8 bits) subjected to A/D by the external A/D converter µPC659AGS (IC1206) is input to Pins (74) to (67), after which the Y signal is output from Pin (84) and the C signal is output from Pin (83).

5-6-1-3.TDA9141 (IC1402), Chroma Decoder & Sync Processing

Chroma decoder/sync processing IC controlled by the I^{2}C bus. It processes the C-VIDEO signal and Y/C signal. The C-VIDEO/Y signal is input to Pin ㉖ and the C signal is input to Pin ㉕ to automatically differentiate NTSC3.58, NTSC4.43, PAL, PAL-M, SECAM, and B/W. When differentiated as PAL, a clock is supplied to IC1104 (CXD2024) and Y/C separation is performed by IC1104. When differentiated as

NTSC3.58, Y/C separation is performed by IC1254 (µPD64081). At other times, the signal is separated into Y/C by this IC. The signal is then converted to the Y, U, and V signals, and output from Pins ① (V) and ② (U). When differentiated as PAL and SECAM, the signal is 1H delayed by IC1401, returned to Pins ③ (U) and ④ (V), processed, and output from Pins ⑫ (Y), ⑬ (V), and ⑭ (U).

During sync processing, the C-VIDEO/Y signal input from Pin ㉖ is separated into H and V, and the H-sync is output from Pin ⑰ while the V-sync is output from Pin ⑪.

5-6-1-4. CXA2119 (IC1410), DRC Interface

Selects the color difference signal sent for DRC processing and matrixes the RGB signal to the color difference signal for 15kRGB.

For VIDEO, Y/C signals are input to Pins ① (Y), ② (B-Y), and ③ (R-Y).

For component, signals are input to Pins ⑤ (Y), ⑥ (B-Y), and ⑦ (R-Y).

For 15kRGB, the signals are input to Pins ⑨ (R), ⑩ (G), and ⑪ (B), matrixed to the color signal, and the signals selected are output from Pins ⑯ (Y), ⑰ (B-Y), and ⑱ (R-Y).

As the clamp pulse used for matrixing from RGB to the color difference signal, the Pin ⑩ SSCP output of TDA9141 (IC1402) is input to Pin ⑧.

5-6-1-5.TCL5733 (IC9006)/CXD8675R (IC9003), DRC AD Converter/TBC

The AC converter and TBC (Time Base Correcter) for DRC processing.

It is input with the Y/R-Y/B-Y signal output from CXA2119 (IC1410), and sent as the digital signal to CXD2070 (IC9103).

5-6-1-6.CXD2070 (IC9103)/CXD2062 (IC9106)/ CXD2071 (IC9201), DRC Processing

Main processing IC in which CXD2062 (IC9106) is the DRC. CXD2070 (IC9103) performs PRE processing while CXD2071 (IC9201) performs POST processing.

It processes the digital signal sent from CXD8675R (IC9003), D/A converts it, and outputs the color difference signal with double speed frequency.

5-6-1-7. CXA2011 (IC1601), HD Interface

This interface is controlled by the I^{2}C bus.

It converts the YPbPb signal to the Y/R-Y/B-Y matrix, as well as performs switching of the YPbPb signal and 2Y/2R-Y/2B-Y signal from DRC. The Y/Pb/Pr signal input to HDTV (YPbPr) is input to Pins ㊶ (Y), ㊵ (Pb), and Pin ㊴ (Pr), while the color difference signal from the DRC circuit is input to Pins ㊲ (2Y), ㊱ (2R-Y), and ㊳(2B-Y).

The outputs are Pins ㉚ (Y), ㉛ (R-Y), and ㉜ (B-Y).

5-6-1-8.CXA1839 (IC1600), Y/R-Y/B-Y->RGB Controller

Various video parameters are controlled by I²C bus.
The user controlled COLOR,HUE, SHARPNESS, DYNAMIC PICTURE ON/OFF are controlled inside this IC.
It also performs such functions as detection axis setting, and chroma transient improvement, converts signals to R, G, B signals and outputs them.
The video signals selected by CXA2011 are input to Pins ㊴ (Y), ㊳ (R-Y), and ㊲ (B-Y).
The signals are subjected to various control functions, converted to R, G, and B signals, and output from Pins ㊳(R), ㊲ (G), and ㊴ (B).

5-6-1-9.EL4093CS (IC1009/1010/1011), RGB Preamplifier

Converts RGB input signals or RGB signals output from CXA1839 (IC1600) to the level necessary for the A/D converter.
Inputs the reference voltage (–2V) to Pin ③ and the clamp pulse to Pin ⑬, and outputs video signal from Pin ⑭.

5-6-1-10.CXD8773 (IC1910), Sync Separation Processing

Inputs the H/COMPOSITE SYNC, V SYNC, SYNC ON GREEN sync signals, and differentiates the existence/polarity/frequency.
It is controlled by GENESYS BUS.
The sync signals input from INPUT-A/B/C are input to Pins (134) (HC), (133) (V), and (132) (SonG), while the other sync signal from INPUT-A is input to Pin (130) (HC), (129) (V), and (128) (SonG), the VIDEO sync signal from TDA9141 (IC1402) is input to Pin (120) (HC) and (119) (V), and the VIDEO double speed sync signal from DRC is input to Pin (116) (HC) and (115) (V). These signals are separated and
output from Pins (107) (H), (106) (V), (104) (CLAMP PULSE), (103) (ODD/EVEN PULSE), and (101) (COMPOSITE BLANKING PULSE). Sync signals are output from Pins (98) (H) and (97) (V) only when the 15k signal is input (component, 15kRGB).

5-6-1-11.CXA3106 (IC1905), PLL Processing

Frequency-divides the horizontal sync signal of the input signal to generate the sampling clock in the A/D converter. It is controlled by the PLL BUS.
The user controlled DOT PHASE, and H SIZE are controlled by this IC. The H SYNC signal from CXD8773 (IC1910) is input to Pin ⑨, and the frequency divided clock is output at the PECL level from Pins ㉜ (CLKH), and ㉛ (CLKL). The phase controlled H SYNC by DOT PHASE is output at the PECL level from Pins ㉞ (DSYNCH) and ㉝ (DSYNCL).

5-6-1-12.CXA1166K (IC1751/1752/1753), A/D Converter

Converts the analog video signal (R/G/B) into 8bit digital signal, and sends it to the BB board. All outputs are at the ECL level. The input signals level converted by EL4093CS (IC1009/1010/1011) are input to Pins ㊾, ㊿, (54), and (58).
The –2V voltage is input to Pin ㊵ (VRB) for the black side reference potential. The GND level is input to Pin (64) (VRT) for the white side reference potential. The sampling clock output from CXA3106 (IC1905) is converted to the ECL level (Pin ㊳ (CLK+)), and input to Pin ㊳ (CLK+) and Pin ㉞ (CLK–). The outputs are Pins ④, ⑤, ⑥, ⑦, ⑫, ⑬, ⑭, ⑱, ⑲, ⑳, ㉑, ㉒, ㉙, ㉚, ㉛, ㉜.

5-6-1-13.MB8814A (IC1004/1008), I/O Port

I/O port controlled by the I²C bus. Outputs High and Low signals controlling various ICs.

5-6-2. Path of Video Signals

The video signal is switched by the QA board, and input to 3 lines of CN1901.

(Pins A⑪ and B⑪ : RED (RGB), R-Y (Component),
Pr (YPbPr), composite video
(Pins A⑧ and B⑧ : GREEN(RGB), Y (Component),
Y (YPbPr), Y (S-VIDEO)
(Pins A⑤and B⑤ : BLUE(RGB), B-Y (Component),
Pb (YPbPr), C (S-VIDEO)

5-6-2-1. Path of VIDEO Signals (To DRC)

The VIDEO, Y/C input is selected by IC1001, 1002, and 1003, and input to Pins ①, ③, ⑤ of IC1101 via buffer Q1001 (Composite video) Q1002 (Y) and Q1003 (c).
At this time, if composite video is selected, the outputs of IC1002 and IC1003 will be muted. If S-VIDEO is selected, the output of IC1001 will be muted.
When the Y/C input is selected, the signal will be output from Pins ㊲ (Y) and ㊴ (C).
When the VIDEO input is selected, the signal will be output from Pin ㉞, and input to Pin ① of IC1102 (NJM2235M) ① via Q1106.
When other than PAL, NTSC 3.58, this signal is output from Pin ⑦ of IC1102. For PAL, the signal is input to Pin ㉘ of IC1104 (comb filter) via the low pass filter (FL1101), Y/C separated, and output from Pins ㉛ (Y) and ㊴ (c) of IC1104. These signals are then passed through the low pass filter,

FL1103, FL1102, and the Y signal is input to Pin ③ of IC1105 while the C signal is input to Pin ③ of IC1106. For NTSC3.58, the A/D signal input to Pin ④ of IC1253 (A/D CONV) via the low pass filter (FL1254) from Pin ㉓ of IC1101 is input to IC1254 (three dimensional comb filter), Y/C separated, and output from Pins (84) (Y) and (83) (C) of IC1254. After this, they are passed through the low pass filter, FL1252, and FL1251, and Y is input to Pin ① of IC1105 while C is input to Pin ① of IC1106. Y and C are switched between PAL and NTSC3.58 by IC1105 and IC1106, and each are output from Pin ⑦. The Y and C signals output from Pin ⑦ are input to Pins ㉛ and ㉙ of IC1101, output from Pins ㊲ (Y) and ㊴ (C), after which Y is passed through IC1102 and input to Pin ㉖ of IC1402, while C is input to Pin ㉘ of IC1402.

The VIDEO and Y/C signals input to IC1402 are converted to the Y, U, and V signals, and output from Pin ⑫ (Y), ⑬ (R-Y), and ⑭ (B-Y).

After this, the Y signal is input to the SECAM trap circuit. For the SECAM, PAL-M, NTSC4.43 signals, the Q1414 turns ON, and the cross color components are suppressed by passing 4.25 MHz through. The R-Y and B-Y signals are reversed and ATT, and the Y signals are directly input to Pins ①, ③, ② of IC1410.

5-6-2-2.Path of Component (Y/R-Y/B-Y) Signals, 15kRGB Signals (Up to DRC)

The component video signal is selected by IC1001/1002/1003, passed through the buffers Q1002 (Y), Q1001 (R-Y), and Q1003 (B-Y), and input to Pins ⑤, ⑦, and ⑥ of IC1410. The 15kRGB signal is passed through the same path as component, and input to Pins ⑨ (R), ⑩ (G), ⑪ (B) of IC1410. The RGB signals are converted to the Y/R-Y/B-Y signals by this IC and output.

5-6-2-3. RGB Decoding by DRC Processing

The IC1410 is input with 3 type of signals-Y/R-Y/B-Y signal, component input signal, and 15kRGB signal signal-processed from VIDEO above. The signals selected are output from Pins ⑯ (Y), ⑱ (R-Y), and ⑰ (B-Y).

They are then passed through the low pass filter FL1401 (Y), FL1402 (B-Y), and FL1403 (R-Y), and input to A/D Pins (63) (Y), ㉛ (B-Y), and ㊿ (R-Y) of IC9006 (TLC5733A).

The voltage from the lower reference potential (VRB) to upper reference potential (VRT) in IC9006 is converted to digital signal divided by 256. The digital output (Pins ⑥ to ⑬, ⑰ to ㉔) is input to IC9003 (CXD8675R/TBC).

IC9003 (CXD8675R) is a circuit which reduces jitters of signals with considerable jitters such as the VCR playback signal. Input reference signals are output as they are.

The DRC (digital, reality, creation) processes are performed in the three ICs -IC9103 (CXD2070Q), IC9106 (CXD2062Q), and IC9201 (CXD2071R). Most of processes are performed by CXD2062Q. CXD2070Q performs preprocessing while CXD2071R performs postprocessing.

Pin (153) (BRMI) of IC9201 switches the DRC level between HIGH and LOW. This signal is output from Pin ⑫ of IC1008 (MB88141A) which is I2C controlled.

The DRC processed video signal is D/A converted internally and output from Pin (102) (2Y) of IC9201 (CXD2071R), (109) (2R-Y), (112) (2B-Y). These signals are passed through FL9203 (2Y), FL9202 (2R-Y), and FL9201 (2B-Y), and the color difference components are level-converted by IC9204, and input to Pins ㊲ (2Y), ㊱ (2R-Y), and ㊳ (2B-Y) of IC1601. The signals selected by IC1601 are output from Pins ㉚ (2Y), ㉛ (2R-Y), ㉜ (2B-Y), and input to Pins ㊴ (2Y), ㊳ (2R-Y), ㊲ (2B-Y) of IC1602 (CXA1839). These signals are video controlled, converted to R, G, and B, and output from Pins ㊳ (R), ㊲ (G), and ㊴ (B). The output amplitude is about 0.7 Vp-p for the video components,

but limitation is imposed using about 0.9V by Q1607, Q1608, and Q1609 so that no excessive signal goes to the circuit after this due to excessive inputs, after which the signal is input to IC1005, IC1006, and IC1007 which are the SWs of the RGB and VIDEO blocks.

After this, the same process as the RGB signal in 6-2-5 is performed.

5-6-2-4. Path of HDTV (Y.PB.PR) Signal

The Y, Pb, and Pr signals are selected by IC1001, IC1002, and IC1003, passed through buffers Q1002 (Y), Q1003 (Pb) and Q1001 (Pr), and input to Pin ㊶ (Y), ㊵ (Pb), and ㊴ (Pr) of IC1601.

The signal selected by IC1601 is converted from the YPbPr level to Y/R-Y/B-Y level, and output from Pins ㉚ (Y), ㉛ (R-Y), and ㉜ (B-Y)input to Pin ㊴ (2Y), ㊳ (2R-Y), ㊲ (2B-Y) of IC1602 (CXA1893), controlled in various video ways, and converted to R, G, B signals. Hereafter, the same process as the DRC output signal is performed.

5-6-2-5. Path of RGB Signals

The RGB video signal is switched to the output of IC1602 (CXA1839) by IC1005 (R), 1006(G), and IC1007 (B), and input to each Pin ① of IC1009, IC1010, and IC1011 (EL4093CS) respectively. The signal is then clamped at -2V, amplified to about 1.7Vp-p, and output from Pin ⑭. This output is input to IC1751, IC1752, and IC1753 (CXA1166K), AC converted, the digital data is output at the ECL level, and sent to the BB board.

5-6-3. Path of SYNC Processing

5-6-3-1. When VIDEO Signal is Selected

The signal output from Pin ⑦ of IC1102 (refer to path of signal processing for details of the signal route until output from Pin ⑦ of IC1001) is switched in the V period by Q1411, the macro vision signals, etc. is extracted, and the video signal is input to Pin ㉖ (Video /Y) of IC1402 (TDA9141). This signal is sync separated, and H-sync output from Pin ⑰ while V-sync is output from Pin ⑪. These signals are then waveform-shaped by IC1407, and input to Pin (120) (H) and (119) (V) of IC1910 (CXD8773R). They are used for differentiating the frequency in IC1910 and are therefore not output.

The H/V sync waveform-shaped by IC1407 or V SYNC for DRC

processing is input to Pin (67) of IC9003 directly, the phase of H SYNC is shifted by IC9005 (PC74HC123A), and input to Pin (135) of IC9003.

The H SYNC is DRC processed by IC9005, IC9103, IC9106, and IC9201 and double speed processed from Pin (142) of IC9201, and V SYNC is output from Pin (145). This signal is converted from 3.3Vp-p to 5Vp-p by IC9202 (TC7SET08FU) (HS) and IC9203 (TC7SET08FU) (VS), and input to Pins (116) (H) and (115) (V) of IC1910 (CXD8773R).

The H-sync and V-sync input to Pins (116) and (115) are sync separated.

IC1910 generates the H sync, V sync, Odd-Even Pulse, Composite Blanking Pulse, and Clamp Pulse by sync separation and outputs them.

The H-Sync output from Pin (107) of IC1910 is input to Pin ⑨ of IC1905 (CXA3106). After delay processing by DotPhase, the signal is output at the PECL level from Pins ㉞ (DSYNCH) and ㊳ (DSYNCL). This H SYNC is converted to the ECL level by IC1907, output from Pin A41 (HS+) and B41 (HS-) of CN1901 and sent to the BB board. The H SYNC input to IC1910 is frequency divided, and the sampling clock for A/D is output from Pins ㉜ (CLKH) and ㉛ (CLKL). These signals are then converted to the ECL level, output from Pin A42 (CLK+) and B42 (CLK–) of CN1901, and sent to the BB board. This clock is output from Pin ⑬ of IC1907, phase-adjusted by IC1908, input to Pins ㊳ (CLK+) and ㊱ (CLK–) of IC1751, IC1752, and IC1753, and used as the sampling clock.

The V-sync output from Pin (106) of IC1910 is converted to the ECL level by IC1906, output from Pins A40 (VS+) and B40 (VS–) of CN1901, and sent to the BB board.

The Odd-Even Pulse output from Pin (103) of IC1910 is converted to the ECL level by IC1906, output from Pins A39 (ODD-EVEN+) and B39 (ODD-EVEN) of CN1901, and sent to the BB board. This signal is used only when the input sync signal is interlaced. In this case, it is synchronized to V SYNC, the level is switched between HIGH and LOW, and it is output.

The Clamp Pulse output from Pin (104) of IC1910 is inverted by IC1904 and input to Pin ⑬ of IC1009, IC1010, and IC1011.

The Clamp Pulse output from Pin (104) of IC1910 and Composite Blanking Pulse output from Pin (101) are waveform-shaped by IC1912, level-converted, and synthesized to generate SCP (Sand Castle Pulse). This pulse is then input to Pins ⑱ of IC1602 and ⑫ of IC1601.

5-6-3-2.When Component Signal and 15kRGB Signal are Selected

The H SYNC (Composite SYNC) and V SYNC waveform-shaped by the QA board are input to Pins A22 (HC2) and A23 (VD2) of IC1901, and input to Pin B23 (HC3). These signals are then input to Pins (134) (HC2) of IC1910 (CXD8773) and (133) and (129)(VD2), and (130)(HC3). The Green/Y signal input to the BA board is passed through IC1002 and Q1002, sync separated by the Sync Tip Clamp circuit of Q1901 to IC1903, and input to Pins (129) and (132) (SonG) of IC1910.

For the INPUT-A channel, the presence, polarity, and frequency of signals are differentiated according to the inputs of Pins (130), (129), and (129).

For the INPUT-B/C, Switcher channel, the presence, polarity, and frequency of signals are differentiated according to the inputs of Pins (134), (133), and (132).

Up to this point, the process is the same except for the VIDEO signal (VIDEO, S-VIDEO).

If the signal is determined as 15k signal in frequency differentiation, the following process is next performed.

1) For external SYNC input
   The input to Pins (130) (H) and (129) (V) of IC1910 is sync separated for the INPUT-A channel, and that to Pins (134) (H) and (133) (V) of IC1910 is sync separated for the INPUT-B/C Switcher channel. After this, the signal is output to Pin (98) (H) and (99) (V). The H Sync is adjusted for its phase and width by IC1909, and the output and V sync are synthesized by IC1901, the level is attenuated to about 0.3 Vp-p, and input to Pin ⑦ of IC1101.

The signal is then output from Pin ⑰ of IC1101, input to Pin ⑤ of IC1102 (NJM2235M), selected, and output from Pin ⑦. The process hereafter is the same as the VIDEO signal.

2) For Sync on Y (Green)
The Y or Green signal is input to Pin ㊸ of IC1101 via Q1002. This signal is output from Pin ⑰ of IC1101, input to Pin ⑤ of IC1102 (NJM2235M), selected, and output from Pin ⑦. The process hereafter is the same as the VIDEO signal.

5-6-3-3. For HDTV (GBR, Y. Pb.Pr) signal

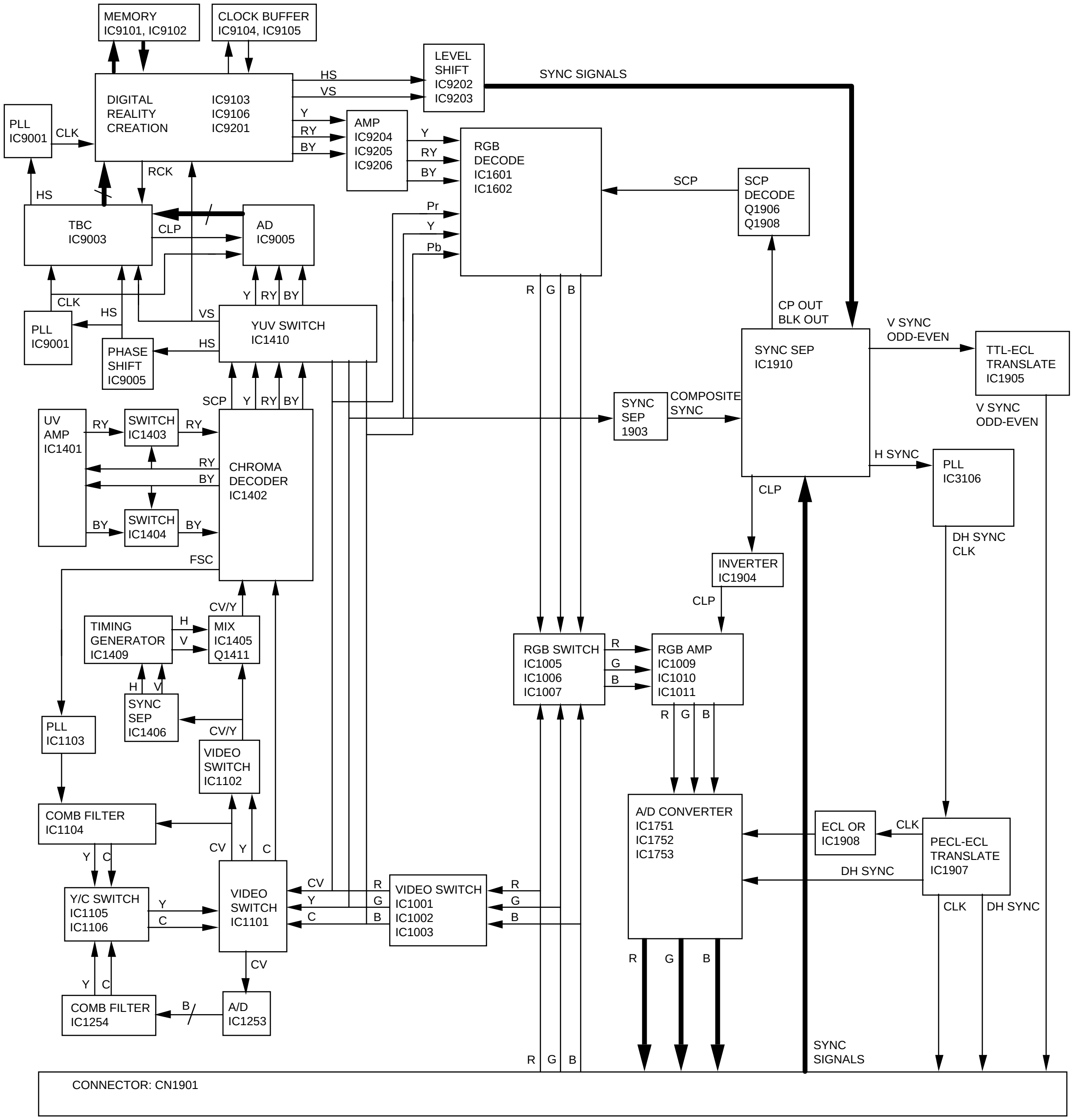
Based on the same input channel conditions as the component signal, and 15k RGB signal, the presence, polarity, and frequency of signals are differentiated according to the inputs to Pins (130) and (134)(H/C), Pins (129) and (133) (V), and Pins (129) and (132) (SonG).

When the signal is differentiated as HDTV in the frequency differentiation, the input to Pins (130) (H), (129) (V), (129) (SonG) of IC1910 is sync separated for the INPUT-A channel, and that to Pins (134) (H), (133) (V), and (132) (SonG) of IC1910 is sync separated for the INPUT-B channel. The output of Pins (107) (H), (106) (V), and (103) (Odd-Even Pulse), and (104) (Clamp Pulse) are processed in the same way as the VIDEO signal.The only difference from the VIDEO signal is that Pin (101) (Composite Blanking Pulse) is fixed at LOW, and therefore the SCP input to Pins ⑩ of IC1602 and ⑫ of IC1601 has the same waveform as the clamp pulse.

5-6-3-4. For RGB Signals

Based on the same input channel conditions as the component signal, and 15k RGB signal, the presence, polarity, and frequency of signals are differentiated according to the inputs to Pins (130) and (134) (H/C), Pins (129) and (133) (V),and Pins (129) and (132) (SonG).
When the signal is differentiated as other than 15k and HDTV, the input to Pins (134) (H), (133) (V), and (132) (SonG) of IC1910 is sync separated regardless of the input channel. The output of Pins (107) (H), (106) (V), and (103) (Odd-Even Pulse), and (104) (Clamp Pulse) are processed in the same way as the VIDEO signal. As no SCP signal is required, Pin (101)(Composite Blanking Pulse) is fixed at LOW

BA BOARD BLOCK DIAGRAM


MEMORY
IC9101, IC9102
CLOCK BUFFER
IC9104, IC9105
LEVEL SHIFT
IC9202
IC9203
SYNC SIGNALS
HS
VS
DIGITAL REALITY CREATION
IC9103
IC9106
IC9201
PLL
IC9001
CLK
Y
RY
BY
AMP
IC9204
IC9205
IC9206
Y
RY
BY
RGB DECODE
IC1601
IC1602
SCP
SCP DECODE
Q1906
Q1908
RCK
HS
TBC
IC9003
CLP
AD
IC9005
Pr
Y
Pb
CLK
PLL
IC9001
HS
VS
Y
RY
BY
YUV SWITCH
IC1410
HS
PHASE SHIFT
IC9005
R
G
B
CP OUT
BLK OUT
V SYNC
ODD-EVEN
SYNC SEP
IC1910
TTL-ECL TRANSLATE
IC1905
SCP
Y
RY
BY
UV AMP
IC1401
RY
SWITCH
IC1403
RY
SYNC SEP
1903
COMPOSITE SYNC
V SYNC
ODD-EVEN
RY
BY
CHROMA DECODER
IC1402
H SYNC
PLL
IC3106
CLP
BY
SWITCH
IC1404
BY
DH SYNC
CLK
FSC
INVERTER
IC1904
CLP
CV/Y
TIMING GENERATOR
IC1409
H
V
MIX
IC1405
Q1411
RGB SWITCH
IC1005
IC1006
IC1007
R
G
B
RGB AMP
IC1009
IC1010
IC1011
H
V
SYNC SEP
IC1406
CV/Y
PLL
IC1103
R
G
B
VIDEO SWITCH
IC1102
COMB FILTER
IC1104
A/D CONVERTER
IC1751
IC1752
IC1753
ECL OR
IC1908
CLK
PECL-ECL TRANSLATE
IC1907
CV
Y
C
Y
C
DH SYNC
Y/C SWITCH
IC1105
IC1106
Y
C
VIDEO SWITCH
IC1101
CV
Y
C
R
G
B
VIDEO SWITCH
IC1001
IC1002
IC1003
R
G
B
CLK
DH SYNC
CV
R
G
B
Y
C
COMB FILTER
IC1254
B
A/D
IC1253
R
G
B
SYNC SIGNALS
CONNECTOR: CN1901

5-7. BB Board

5-7-1.Main Circuit Functions

- Image data parallel circuit
- Frame rate conversion circuit
- Resolution conversion circuit
- gmZ3/IP90C63 interface circuit
- APA detection circuit
- Contrast/bright adjustment circuit
- White balance adjustment circuit
- Test pattern generation circuit
- 3-dimensional gamma adjustment circuit
- OSD mix circuit
- ODD-EVEN switching circuit
- D/A conversion circuit
- M board CPU interface

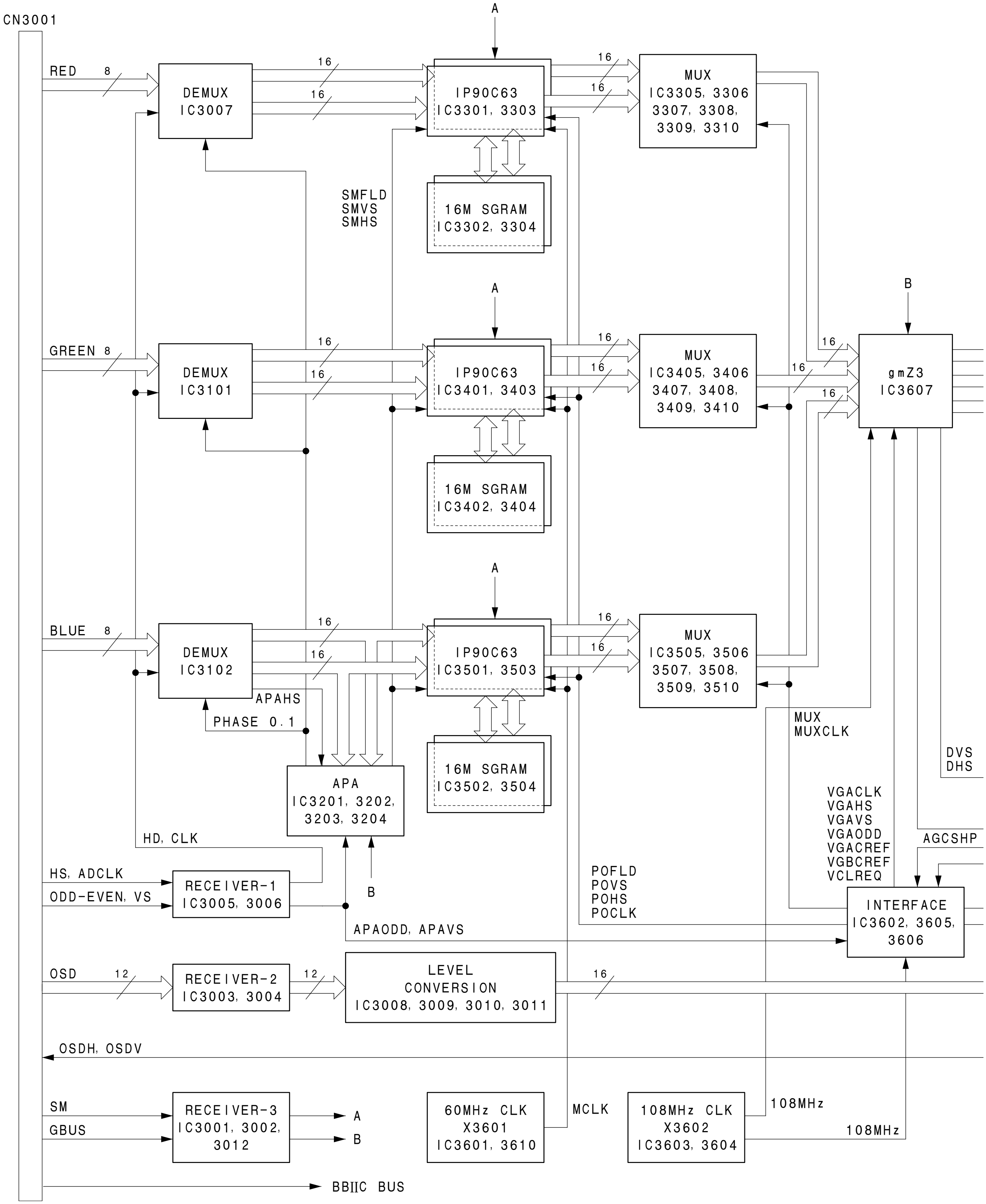
5-7-2.Outline

The input of the BB board is the data A/D converted to 8-bit RGB by the BA board.
In the BB board, all signals are processed digitally.
In the BB board, the following signal processing is performed.

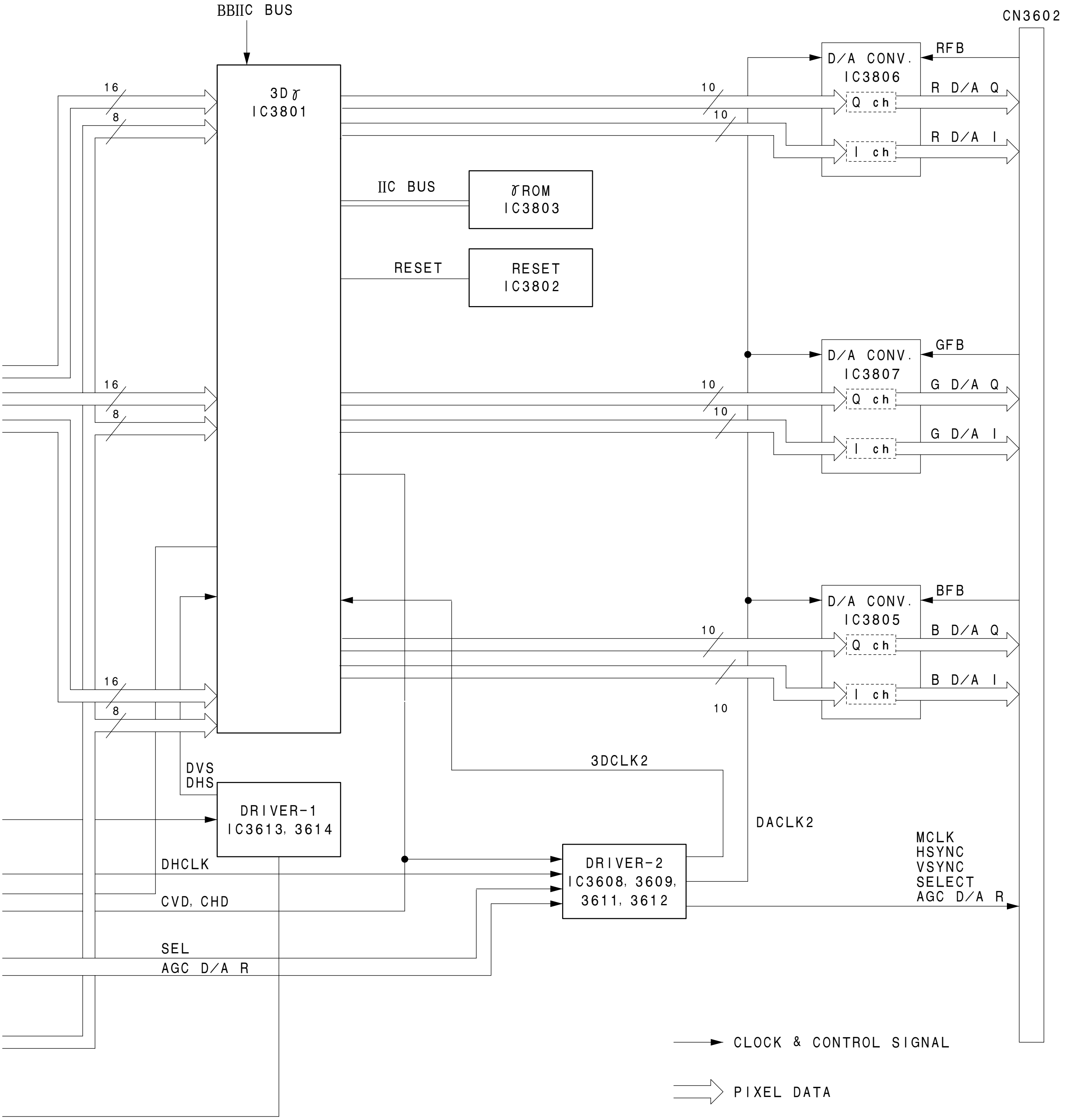
- 5-7-4. Image data parallelization
- 5-7-5. Frame rate conversion
- 5-7-6. Resolution conversion
- 5-7-7. APA detection
- 5-7-8. Contrast/bright adjustment
- 5-7-9. White balance adjustment
- 5-7-10. 3-dimensional gamma adjustment
- 5-7-11. Test pattern generation
- 5-7-12. OSD mixing.

The processed digital (R,G,B) signals are converted to analog signals by the D/A conversion circuit and sent to the C board.
Consequently, data of various signal formats converted to the RGB signal by the A/D conversion circuit are input to the BB board.
The data input is converted to the SXGA signal format, further signal processed, and output as RGB signal converted to the analog signal.
In the BB board, as all signals are processed digitally, there are no parts requiring adjustments. As the output reference voltage of the D/A conversion IC which is the only analog circuit is set by the feedback circuit of the C board, it does not require any adjustments.

5-7-3. BB Board Block Diagram


CN3001
A
RED
8
DEMUX
IC3007
16
16
IP90C63
IC3301, 3303
16
16
MUX
IC3305, 3306
3307, 3308,
3309, 3310
SMFLD
SMVS
SMHS
16M SGRAM
IC3302, 3304
A
B
GREEN
8
DEMUX
IC3101
16
16
IP90C63
IC3401, 3403
16
16
MUX
IC3405, 3406
3407, 3408,
3409, 3410
16
16
16
gmZ3
IC3607
16M SGRAM
IC3402, 3404
A
BLUE
8
DEMUX
IC3102
16
16
IP90C63
IC3501, 3503
16
16
MUX
IC3505, 3506
3507, 3508,
3509, 3510
APAHS
PHASE 0.1
16M SGRAM
IC3502, 3504
MUX
MUXCLK
DVS
DHS
APA
IC3201, 3202,
3203, 3204
VGACLK
VGAHS
VGAVS
VGAODD
VGACREF
VGBCREF
VCLREQ
AGCSHP
HD, CLK
HS, ADCLK
ODD-EVEN, VS
RECEIVER-1
IC3005, 3006
B
POFLD
POVS
POHS
POCLK
INTERFACE
IC3602, 3605,
3606
APAODD, APAVS
OSD
12
RECEIVER-2
IC3003, 3004
12
LEVEL
CONVERSION
IC3008, 3009, 3010, 3011
16
OSDH, OSDV
SM
GBUS
RECEIVER-3
IC3001, 3002,
3012
A
B
60MHz CLK
X3601
IC3601, 3610
MCLK
108MHz CLK
X3602
IC3603, 3604
108MHz
108MHz
BBIIC BUS

http://getMANUAL.com


BBIIC BUS
CN3602
3Dγ
IC3801
16
8
16
8
16
8
10
10
10
10
10
10
D/A CONV.
IC3806
Q ch
I ch
RFB
R D/A Q
R D/A I
IIC BUS
γROM
IC3803
RESET
RESET
IC3802
D/A CONV.
IC3807
GFB
G D/A Q
G D/A I
D/A CONV.
IC3805
BFB
B D/A Q
B D/A I
3DCLK2
DACLK2
DVS
DHS
DRIVER-1
IC3613, 3614
DHCLK
CVD, CHD
SEL
AGC D/A R
DRIVER-2
IC3608, 3609,
3611, 3612
MCLK
HSYNC
VSYNC
SELECT
AGC D/A R
CLOCK & CONTROL SIGNAL
PIXEL DATA

5-7-4. Image Data Parallelization Circuit

The R, G, B data A/D converted to 8 bits by the BA board are sent at a high speed clock frequency of 160 MHz at the maximum between the BA board and BB board.
This is realized by adopting the differential transfer of the ECL interface for transfer between boards. This transfer method enables data transfer at clock frequencies above 200 MHz. Furthermore, as 1 bit is performed using two cables (normal direction and reverse), it offers such advantages as strong resistance against external noise and little unwanted radiation. Therefore, power consumption is slightly increased.
The BB board performs signal processing of image data with a clock frequency of 160 MHz. The CMOS IC normally used does not operate at such high frequencies. Consequently, the data string input is divided by 4, and the clock frequency of the data is lowered to 1/4 and processed.
Consequently, 8-bit (D0, D1, D2, D3, D4, D5, D6, D7) data strings are divided into four data strings D0 and D4, D1 and D5, D2 and D6, and D3 and D7. As a result, the clock frequency becomes 1/4, while the data is multiplied by four times to become 32 bits from 8 bits.
After processing, the data string is converted to four RGB data strings. But as the maximum frequency of the clock drops to 40 MHz, signal processing by the CMOS IC after this circuit is possible.
The four frequency division is started based on the timing of the horizontal sync signal HS.
The start position of the frequency division can be shifted from 0 to 3 clocks one clock at a time. Consequently, it is possible to set where to start frequency division (D0, D1, D2 or D3). The start position of frequency division can be set using the 2 bits (PHASE 0 and PHASE 1). This function is used when adjusting the position below the H START 4.
The above process is performed by the DEMUX circuit in the clock diagram.

5-7-5. Frame Rate Conversion Circuit

This unit is input with various frame frequency signals; 60 Hz for the NTSC method, 50 Hz for the PAL method, and 60 Hz/75 Hz/85 Hz for the SXGA method. As the LCD panel cannot deal with high frame frequencies, if the frame frequency of
the input signal is high, the frame frequency is lowered by the following process. Consequently, memory of one frame is mounted for R, G, and B to convert the frame rate by performing writing and reading independently.
In this unit, when the frame frequency of the input signal is less than 62 Hz, the frame frequency of writing and reading is made the same. In this case, the frame may be exceeded for some magnification percentages or VSHIFT values.
When the frame frequency of the input signal is above 62 Hz, the frame frequency for reading is fixed at 62 Hz. In this case, the frame is always overtaken. Since the signal input to the computer has not moving image synchronized with the frame, no problems occur.
In the case of the video input, when the frame is overtaken, the picture quality drops. Therefore, only for video inputs (including HDTV), the memory is divided into the ODD and EVEN fields. When the data is written in the ODD field, the EVEN field is read, and vice versa to prevent overtaking of the frame.
The LCD panel is always driven at frame frequencies below 62 Hz using the above method.
The above process is performed by the memory controller (IP90C63) and memory (16M SGRAM) shown in the block diagram. The memory controller (IP90C63) is input with the 8-bit 4-phase R,G,B signals. Although the output is 8-bit 4-phase R,G,B signals, the clock frequency is doubled at the MUX circuit connected to the later stage, to convert the R,G, and B signals to 8-bit 2 phases. This is because the resolution conversion circuit (gmZ3) in the next stage is a 8-bit 2-phase input.
In the BB board, only the frame memory functions at 60 MHz. All circuits after the memory controller (IP90C63) operate at 108 MHz or frequency-divided 54 MHz. These frequencies are constant regardless of the input signal.
The frame memory is able to store 2 frames of the signals of the maximum screen of 1600 pixels × 1200 lines.

5-7-6.Resolution Conversion Circuit

For the output of the frame rate conversion circuit, the resolution of the effective screen is not horizontal 1280 pixels and vertical 1024 lines other than when the input signal is SXGA. The output is the resolution of the input signal. Therefore, there is a need to convert the resolution of the LCD panel to horizontal 1280 pixels/vertical 1024 lines.
The resolution is converted by the gmZ3 in the block diagram. The gmZ3 output is resolution of SXGA and 8-bit 2-phase R,G, and B.
The gmZ3 sends a request to the IP90C63 when image data is required and reads from the IP90C63 at units of one line. Consequently, the IP90C63 functions as a buffer

memory.
Since the gmZ3 magnifies by resolution conversion, the pixel number input to the gmZ3 is less than that output from the gmZ3. The input clock of the gmZ3 is 54 MHz while the output clock is 108 MHz. The output pixel of the gmZ3 is fixed at SXGA. But as the input pixel number of the gmZ3 differs depending on the magnification rate and is less than the output pixel number, the effective line is intermittently set. Consequently, the output of the IP90C63 differs from the VGA and SVGA, and is not a specific signal format.

5-7-7. gmZ3/IP90C63 Interface Circuit

The frame rate conversion circuit and resolution conversion circuit are composed of ICs of different manufacturers. Consequently, no handshake for directly receiving image data is performed. The both handshake signals are converted by the gmZ3&IP90C63 interface circuit and generated by the field program gate array (field programmable gate array).

5-7-8. APA Detection Circuit

When the APA key of the remote controller or control panel is pressed, the DOT PHASE adjustment is automatically executed. The APA adjusts the DOT PHASE so that the image displayed on the LCD panel can be seen most clearly.
When the APA key is pressed, the microcomputer sequentially changes the DOT PHASE adjustment value from 0 to 31. The APA detection circuit calculates the resolution of the screen at each adjustment value for all the pixels of the screen. Finally, the microcomputer sets the DOT PHASE to the adjustment value with the highest resolution. Consequently, when the input image is a still image, automatic adjustment of the DOT PHASE can be performed against only one dot on a black background or all gray flat field screen except for special cases such as an all black screen. The APA detection circuit also performs the process for when the number of lines of the input signal is more than 1024 lines of the SXGA.
As mentioned earlier, the resolution conversion circuit performs only the magnification of the input signal. Consequently, when the UXGA signal is input, the number of pixels input to the frame rate conversion circuit must be
thinned to below 1280 pixels × 1024 lines beforehand. For example, there is a need to thin the 1600 pixels × 1200 lines of the UXGA signal to 1280 pixels × 960 lines.
The thinning of the effective number of pixels of one line to 1280 pixels is performed by sampling the effective screen to 1280 pixels by the A/D conversion circuit of the BA board. In this case, as the number of effective pixels of the input signal and sampled number of pixels differ, there is no need to adjust the DOT PHASE. However, the image appears different when the DOT PHASE is changed.
The thinning of the line number of one screen to below 1024 lines is performed by the APA circuit. The horizontal sync signal of the input signal is input to the frame rate conversion circuit by thinning and the line written in the frame rate conversion circuit is thinned. To decrease 1200 lines to 960 lines, 1 line is thinned for every 5 lines to reduce to 80%.

5-7-9. Contrast and Bright Adjustment Circuit

The contrast and bright adjustment is performed by digital calculation by the 3Dγ circuit in the block diagram.
The contrast adjustment is performed by adding the contrast adjustment value to the image data. At the same time, bright adjustment is performed by multiplying the bright adjustment value with the image data.

5-7-10. White Balance Adjustment Circuit

White balance adjustment is performed by digital calculation by the 3Dγ circuit shown in the block diagram.
The calculation performed during white balance adjustment is different from the standard contrast and bright adjustment, and is equivalent to the contrast and bright adjustment performed independently for R, G, and B. The white balance adjustment name is different. It is called gain and bias adjustment.
The gain adjustment is performed by multiplying the gain adjustment value with the image data. Consequently, the calculation in the gain adjustment is performed in the same way as that of the contrast adjustment.
The bias adjustment is performed by adding the bias adjustment value to the image data. Consequently, the calculation in the bias adjustment is performed in the same way as that of the bright adjustment.
Blanking is performed by setting the data to 0 after the white balance adjustment. Consequently, even if the contrast
and bright are changed, or the white balance is changed, the blanking level does not change.

5-7-11. Test Pattern Generation Circuit

The hatch pattern for the test pattern is generated in the circuit connected to the white balance adjustment circuit of the 3Dγ circuit in the block diagram. The test pattern is substituted by the input image signal as digital data and output.
Consequently, the contrast/bright adjustment and white balance adjustment are not related.

5-7-12. OSD Mix Circuit

This circuit is composed of the 3Dγ circuit shown in the block diagram. Digital calculation is performed after 3 dimensional gamma adjustment. Consequently, the contrast and bright adjustment, white balance adjustment, and 3-dimensional gamma adjustment are not related. The OSD data and image data from the M board are switched by this circuit. Calculation for half blanking of the input images is also performed by this circuit.5-7-12. 3-Dimensional Gamma Adjustment Circuit

5-7-13. 3-Dimensional Gamma Adjustment

In this circuit, the functions of the input voltage and transmittance rate of the LCD panel are changed so that they become the input voltage and brightness gamma characteristics functions of general CRT displays.
Generally, gamma correction is performed using the analog IC. But in this unit, it is performed by digital processing. As detailed correction can be performed in digital gamma correction, gradation reproducibility is excellent. Different gamma correction data of R, G, and B are written in the @@ ROM circuit shown in the block diagram .
This unit is equipped with a circuit (3-dimensional digital gamma correction circuit) with improved uniformity of the projected screen.
Due to the presence of various factors such as lamp, optical system, and LCD panel, the characteristics of the input voltage and brightness of the image projected differ by pixel. Consequently, when the whole screen is processed using one gamma function, the uniformity drops, brightness decreases at the center of the screen, and the color differs according to the location.
In the correction performed by signal processing, different RGB gamma functions are provided for all pixels of the SXGA panel. The functions differ according to the model. In this unit, there is a need to measure the image projected. In this case, the number of gamma functions is enormous (1280 pixels × 1024 pixels × 3 (RGB)), and it is not possible to measure the gamma function data.
By providing gamma functions for only the representative pixels (5 pixels horizontally, and 5 vertically on the screen), the gamma function is corrected using four representative pixels in the vicinity, and different gamma functions are obtained for all pixels of the screen.
As the gamma function is that for the digital input (256 level), it is difficult to provide outputs for 256 inputs using one representative pixel due to the enormous data volume.
Consequently, the standard gamma function common to all models are stored in the ROM beforehand, and the correction function which is the differential value by model for the stored gamma function is obtained. Since it is also difficult to measure the correction function at the input level of all 256 inputs, the correction function is measured for every 16 input level. The correction value for the input level during this time is corrected from the correction value measured at two surrounding points to obtain the correction function.

Correction point:
Horizontal 1280 pixels × vertical 1024 pixels × 3 (RGB) × 256 level: 603979776 points
Consequently, the representative points actually corrected by the above method are:
Horizontal 6 pixels × vertical 5 pixels × 3 (RGB) × 7 level= 630 points .
The 630 points are a suitable value as the correction value provided by measuring with the actual unit.
The correction value of the representative 630 points is measured for every unit. By interpolating all other points from the representative 8 points in the surrounding, correction is performed for R, G, and B at all input levels of all pixels.

5-7-14. ODD-EVEN Switching Circuit

Odd and even pixels are each output by 10 bit/2 phase from the 3-dimensional gamma circuit shown in the block diagram. As two channels of the D/A converter in the D/A conversion circuit operate at one reference voltage, the level differs
slightly for each output. Consequently, when the channel is fixed, the brightness difference of the odd and even pixels of the image may appear as vertical lines in some cases.
To reduce this, the channel is switched for every line between the odd and even pixels.
The BUS SW circuit in the block diagram switches the 10 bits of the odd and even pixels of the 3-dimensional

gamma circuit for every line and outputs to the D/A conversion circuit. For example, taking the I channel of the D/A conversion circuit as an odd pixel, the Q channel as an even pixel, in the next line, I and Q are switched to the even pixel and odd pixel respectively.

5-7-15. D/A conversion Circuit

The D/A conversion circuit of the RGB incorporates a D/A circuit for two channels. The 10-bit 2-phase input from the bus switch circuit in the block diagram is D/A converted at 54 MHz for both channels. The analog output generated is supplied with the reference voltage from the C board so that the white level is always function. Consequently, no adjustments are required.
The output of the D/A conversion circuit is output at 2 phases mixing the odd and even pixels (switched for every line). The reverse process is performed at the C board to return the 2 phase of the even and odd pixels.

5-7-16. M Board CPU Interface

There are three ICs limited to perform CPU interface on the BB Board.
The conversion circuit for frame rate is controlled by 3-core serial A-bus line in the block diagram while resolution conversion circuit and APA detection is controlled by 4-core serial B-bus+D3Dγ circuit is controlled by IIC bus, shown as BBIICBUS.

5-7-17. Clock Generation Circuit

In the BB board, clocks are generated by the 60 MHz clock circuit and 108 MHz clock circuit in the block diagram. In the BB board, the frequency of stable 60 MHz and 108 MHz clocks generated by a crystal are changed periodically in the range of +0 to -2.5% by the spectrum expansion method. This is because the peak power in the frequency range of the clock disperses when the clock is spectrum-dispersed, and the peak value of unwanted radiation decreases. When the waveform of the BB board is measured using an oscilloscope, the waveform often appears as jitter.

5-7-18. Malfunctioned Part Differentiation Method

Replace the BB board with a normal one, and check that this unit operates normally.
When the BB board is determined as faulty, check the following items. Failure to produce color and irregular patterns are also considered as faults.

(1) Project the RGB input of the SXGA. Disconnect the RGB cables of the input one by one, and check the following.
   1. Normal
   2. The odd pixel of red is abnormal, the even pixel is correct. Or the even pixel of red is abnormal and the odd pixel is correct.
   3. The odd pixel of green is abnormal, the even pixel is correct. Or the even pixel of green is abnormal and the odd pixel is correct.
   4. The odd pixel of blue is abnormal, the even pixel is correct. Or the even pixel of blue is abnormal and the odd pixel is correct.

For the above 2, 3, 4, the single color is abnormal and abnormal images will be seen overlapped with the normal image.

   5. Red is abnormal.
   6. Green is abnormal.
   7. Blue is abnormal.
   8. All colors are abnormal.

(2) Project the test pattern.
   1. Normal.
   2. Red is abnormal.
   3. Green is abnormal.
   4. Blue is abnormal.
   5. All colors are abnormal.

(3) Project the OSD.
   1. Normal.
   2. Red is abnormal.
   3. Green is abnormal.
   4. Blue is abnormal.
   5. All colors are abnormal.

Refer to the above items, and determine the corresponding problem. While referring to the malfunctioned block differentiation table for the BB board, determine the malfunctioned block

Example 1: (1) All colors of the SXGA input are abnormal.

(2) All colors of the test pattern are abnormal.
(3) All colors of the OSD are abnormal.

Worst possible condition when the functions of the BB board are more or less not working.
Malfunction of the following blocks may be suspected according to the malfunctioned block differentiation table for the BB board.
GMZ3, RECEIVER-3, 108 MHz CLK, INTERFACE, DRIVER-1, DRIVER-2

Example 2: (1) Red is abnormal for the SXGA input.
(2) The test pattern is normal.
(3) The OSD is normal.

When the test pattern and OSD are normal, and only the input signal for red is abnormal. The malfunction of the following blocks may be suspected.
DEMUX-R, MUX-R

Example 3: (1) Red is abnormal for the SXGA input.

(2) Red of the test pattern is abnormal.
(3) Red of the OSD is abnormal.
When red is always abnormal. The malfunction of the following blocks may be suspected.
3Dγ -R, BUS SW-R, DA CONV-R

Blocks with high malfunction probability (including ICs with high integration degree) are;
DEMUX, APA, IP90C63, 16M SGRAM, gmZ3, 3Dγ, γ ROM, BUS SW, D/A CONV.
On the other hand, blocks with low malfunction probability;
MUX, RECEIVER-1, RECEIVER-2, RECEIVER-3, LEVEL CONVERSION, 60 MHz CLK, 108 MHz CLK, DRIVER-1, DRIVER-2

5-7-19. Precautions on Use of Oscilloscope

To prevent unwanted radiation of the unit, the clocks of the BB board are processed by spectrum dispersal.
Consequently, when using the oscilloscope to measure, most signals of the BB board appear superimposed with jitters.

- To stop spectrum dispersal to facilitate repairs, remodel the unit as follows. After repairs, be sure to return to its original state.

  Chip resistor 22 Ω 1-216-009-91 Deleted: R3622, R3670
  Added: R3669, R3621

5-7-20.Discrimination Table for a defective block of BB Board.

			CONDITION									
			RGB INPUT									
BLOCK NAME		IC REFERENCE	RO	GO	BO	RE	GE	BE	R	G	B	ALL
DEMUX	R	3007	○	○	○	○	○	○	×	○	○	○
	G	3101	○	○	○	○	○	○	○	×	○	○
	B	3102	○	○	○	○	○	○	○	○	×	○
APA		3201 3202 3203 3204	○	○	○	○	○	○	○	○	○	×
IP90C63-1	R	3301	×	○	○	○	○	○	○	○	○	○
	G	3401	○	×	○	○	○	○	○	○	○	○
	B	3501	○	○	×	○	○	○	○	○	○	○
IP90C63-2	R	3303	○	○	○	×	○	○	○	○	○	○
	G	3403	○	○	○	○	×	○	○	○	○	○
	B	3503	○	○	○	○	○	×	○	○	○	○
16M SGRAM-1	R	3302	×	○	○	○	○	○	○	○	○	○
	G	3402	○	×	○	○	○	○	○	○	○	○
	B	3502	○	○	×	○	○	○	○	○	○	○
16M SGRAM-2	R	3304	○	○	○	×	○	○	○	○	○	○
	G	3404	○	○	○	○	×	○	○	○	○	○
	B	3504	○	○	○	○	○	×	○	○	○	○
MUX	R	3305 3306 3307 3308 3309 3310	○	○	○	○	○	○	×	○	○	×
	G	3405 3406 3407 3408 3409 3410	○	○	○	○	○	○	○	×	○	×
	B	3505 3506 3507 3508 3509 3510	○	○	○	○	○	○	○	○	×	×
GMZ3		3607	○	○	○	○	○	○	○	○	○	×
3Dγ		3801	○	○	○	○	○	○	×	×	×	×
γROM		3803	○	○	○	○	○	○	○	○	○	×
D/A CONV.	R	3806	○	○	○	○	○	○	×	○	○	○
	G	3807	○	○	○	○	○	○	○	×	○	○
	B	3805	○	○	○	○	○	○	○	○	×	○
RECEIVER-1 (ECL/CMOS)		3005 3006	○	○	○	○	○	○	○	○	○	×
RECEIVER-2 (OSD DATA)		3003 3004	○	○	○	○	○	○	○	○	○	○
RECEIVER-3 (CPU BUS)		3001 3002 3012	○	○	○	○	○	○	○	○	○	×
LEVEL CONVERSION (OSD)		3008 3009 3010 3011	○	○	○	○	○	○	○	○	○	○
60MHz CLK		3601 3610	○	○	○	○	○	○	○	○	○	×
108MHz CLK		3604 3603	○	○	○	○	○	○	○	○	○	×
INTERFACE		3602 3605 3606	○	○	○	○	○	○	○	○	○	×
DRIVER-1		3613 3614	○	○	○	○	○	○	○	○	○	×
DRIVER-2		3608 3609 3611 3612	○	○	○	○	○	○	○	○	○	×

Judgment	If RO, GO or BO is "X"	:	Odd picture elements of R, G, and B are abnormal. Even picture elements are all normal.
	If RE, GE or BE is "X"	:	Even picture elements of R, G, and B are abnormal. Odd picture elements are all normal.
	If R is "X"	:	R is abnormal.
	If G is "X"	:	G is abnormal.
	If B is "X"	:	B is abnormal.
	If ALL is "X"	:	R, G, and B are all abnormal.

			CONDITION							
			TEST PATTERN			OSD				
BLOCK NAME		IC REFERRENCE	R	G	B	L	R	G	B	ALL
DEMUX	R	3007	○	○	○	○	○	○	○	○
	G	3101	○	○	○	○	○	○	○	○
	B	3102	○	○	○	○	○	○	○	○
APA		3201 3202 3203 3204	○	○	○	○	○	○	○	○
IP90C63-1	R	3301	○	○	○	○	○	○	○	○
	G	3401	○	○	○	○	○	○	○	○
	B	3501	○	○	○	○	○	○	○	○
IP90C63-2	R	3303	○	○	○	○	○	○	○	○
	G	3403	○	○	○	○	○	○	○	○
	B	3503	○	○	○	○	○	○	○	○
16M SGRAM-1	R	3302	○	○	○	○	○	○	○	○
	G	3402	○	○	○	○	○	○	○	○
	B	3502	○	○	○	○	○	○	○	○
16M SGRAM-2	R	3304	○	○	○	○	○	○	○	○
	G	3404	○	○	○	○	○	○	○	○
	B	3504	○	○	○	○	○	○	○	○
MUX	R	3305 3306 3307 3308 3309 3310	○	○	○	○	○	○	○	○
	G	3405 3406 3407 3408 3409 3410	○	○	○	○	○	○	○	○
	B	3505 3506 3507 3508 3509 3510	○	○	○	○	○	○	○	○
GMZ3		3607	○	○	○	○	○	○	○	×
3Dγ		3801	×	×	×	○	×	×	×	×
γROM		3903	○	○	○	×	○	○	○	○
D/A CONV.	R	3806	×	○	○	○	×	○	○	○
	G	3807	○	×	○	○	○	×	○	○
	B	3805	○	○	×	○	○	○	×	○
RECEIVER-1 (ECL/CMOS)		3005 3006	○	○	○	○	○	○	○	○
RECEIVER-2 (OSD DATA)		3003 3004	○	○	○	○	×	×	×	×
RECEIVER-3 (CPU BUS)		3001 3002 3012	○	○	○	×	○	○	○	×
LEVEL CONVERSION (OSD)		3008 3009 3010 3011	○	○	○	○	×	×	×	×
60MHz CLK		3601 3610	○	○	○	○	○	○	○	○
108MHz CLK		3604 3603	○	○	○	×	○	○	○	×
INTERFACE		3602 3605 3606	○	○	○	×	○	○	○	×
DRIVER-1		3613 3614	○	○	○	×	○	○	○	×
DRIVER-2		3608 3609 3611 3612	○	○	○	×	○	○	○	×

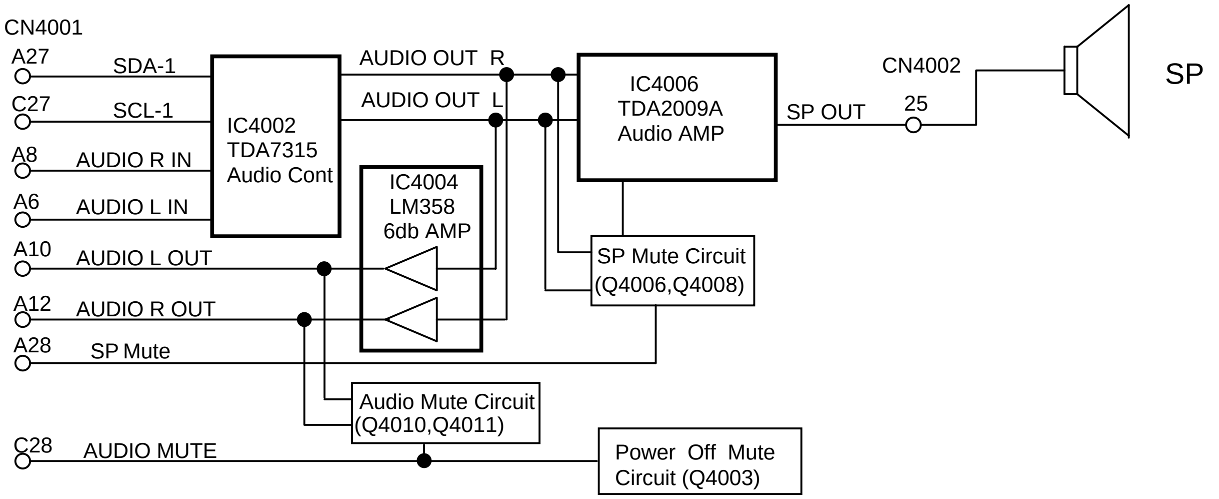
Judgment	If RO, GO or BO is "X"	:	Odd picture elements of R, G, and B are abnormal. Even picture elements are all normal.
	If RE, GE or BE is "X"	:	Even picture elements of R, G, and B are abnormal. Odd picture elements are all normal.
	If R is "X"	:	R is abnormal.
	If G is "X"	:	G is abnormal.
	If B is "X"	:	B is abnormal.
	If ALL is "X"	:	R, G, and B are all abnormal.

The BC board broadly has the following 2 functions

1. Audio block
2. Lens motor drive block

5-8.BC Board

5-8-1. Audio Block


CN4001
A27
SDA-1
C27
SCL-1
A8
AUDIO R IN
A6
AUDIO L IN
A10
AUDIO L OUT
A12
AUDIO R OUT
A28
SP Mute
C28
AUDIO MUTE
IC4002
TDA7315
Audio Cont
AUDIO OUT R
AUDIO OUT L
IC4004
LM358
6db AMP
IC4006
TDA2009A
Audio AMP
SP Mute Circuit
(Q4006,Q4008)
Audio Mute Circuit
(Q4010,Q4011)
Power Off Mute
Circuit (Q4003)
SP OUT
CN4002
25
SP

5-8-1-1. Function

Circuit which controls the Audio Out and Speaker Out outputs.

5-8-1-2. Description of Operations

The audio signal input from outside is input to Pins A6 and A8 of CN4001.

It is then input to the audio control IC IC4002 (TDA7315).

This IC controls the volume by the IIC bus input from Pins A27 and C27 of CN4001.

The volume controlled signal is input to IC4006 (TDA2009A), amplified by about 36 db, output from Pins ㉖ and ㉗ of CN4002 to drive the speaker.

In IIC bus control, the 5W output sound from the speaker is output when Volume is Max.

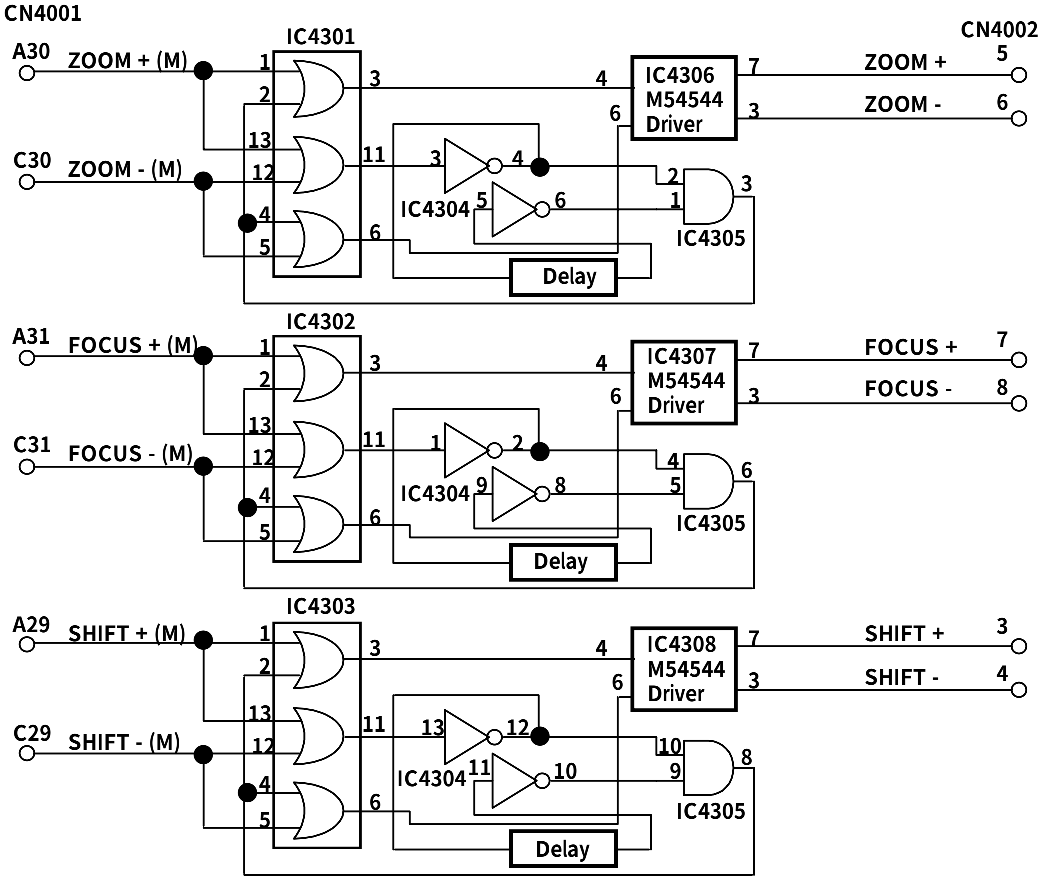
For the Audio Out, the variable OUT of IC4002 (TDA7315) is input to IC4004 (LM358), amplified by 6 db, and output from Pins A10 and A12 of CN4001. (To obtain the 1 Vrms output when Volume is Max.)

Muting is performed by setting Pins A28 (SP Mute) and C28 (Audio Mute) of CN4001 to High by the M board.

SP Mute is performed by setting the input of IC4006 to GND using Q4006 and Q4008 and muting the speaker output.

In Audio Mute, the audio out is muted by setting Pins A10 and A12 of audio out to GND.

5-8-2. Lens Motor Drive Block


CN4001
A30
ZOOM + (M)
C30
ZOOM - (M)
IC4301
IC4304
IC4305
IC4306
M54544
Driver
Delay
CN4002
ZOOM +
ZOOM -
A31
FOCUS + (M)
C31
FOCUS - (M)
IC4302
IC4307
M54544
Driver
FOCUS +
FOCUS -
A29
SHIFT + (M)
C29
SHIFT - (M)
IC4303
IC4308
M54544
Driver
SHIFT +
SHIFT -

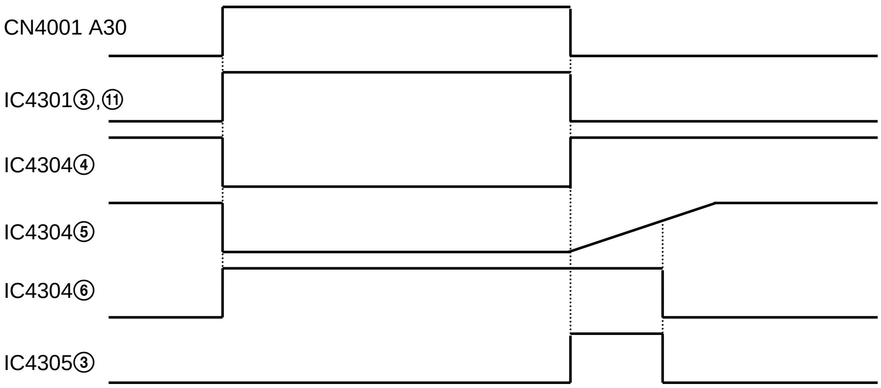
5-8-2-1. Function

Circuit which drives the ZOOM, FOCUS, SHIFT motors of the lens.

5-8-2-2. Description of Operations

As the ZOOM, FOCUS, and SHIFT circuits are the same, the ZOOM + circuit is described below.

The pulse waveform from the M board is input to Pin A30 of CN4001. The same waveform is then output from Pins ③ and ⑪ of IC4301 which is the OR gate. The output of Pin ③ is input to Pin ④ of IC4306 and used to drive the ZOOM motor. The output of Pin ⑪ on the other hand is input to Pin ④ of IC4306 to drive the ZOOM motor. The output of Pin ⑪ is input to Pin ③ of IC4304, and the waveform inverted from Pin ④ is output. This output waveform is branched and one is directly input to Pin ② of IC4305 which is the AND gate while the other is input to Pin ⑤ of IC4304 by weakening the waveform using the resistor and capacitor to input an inversion signal slightly delayed from the first waveform into Pin ①. As a result, the delay pulse is generated from Pin ③, input to Pins ② and ④ which are the OR gate of IC4301. At

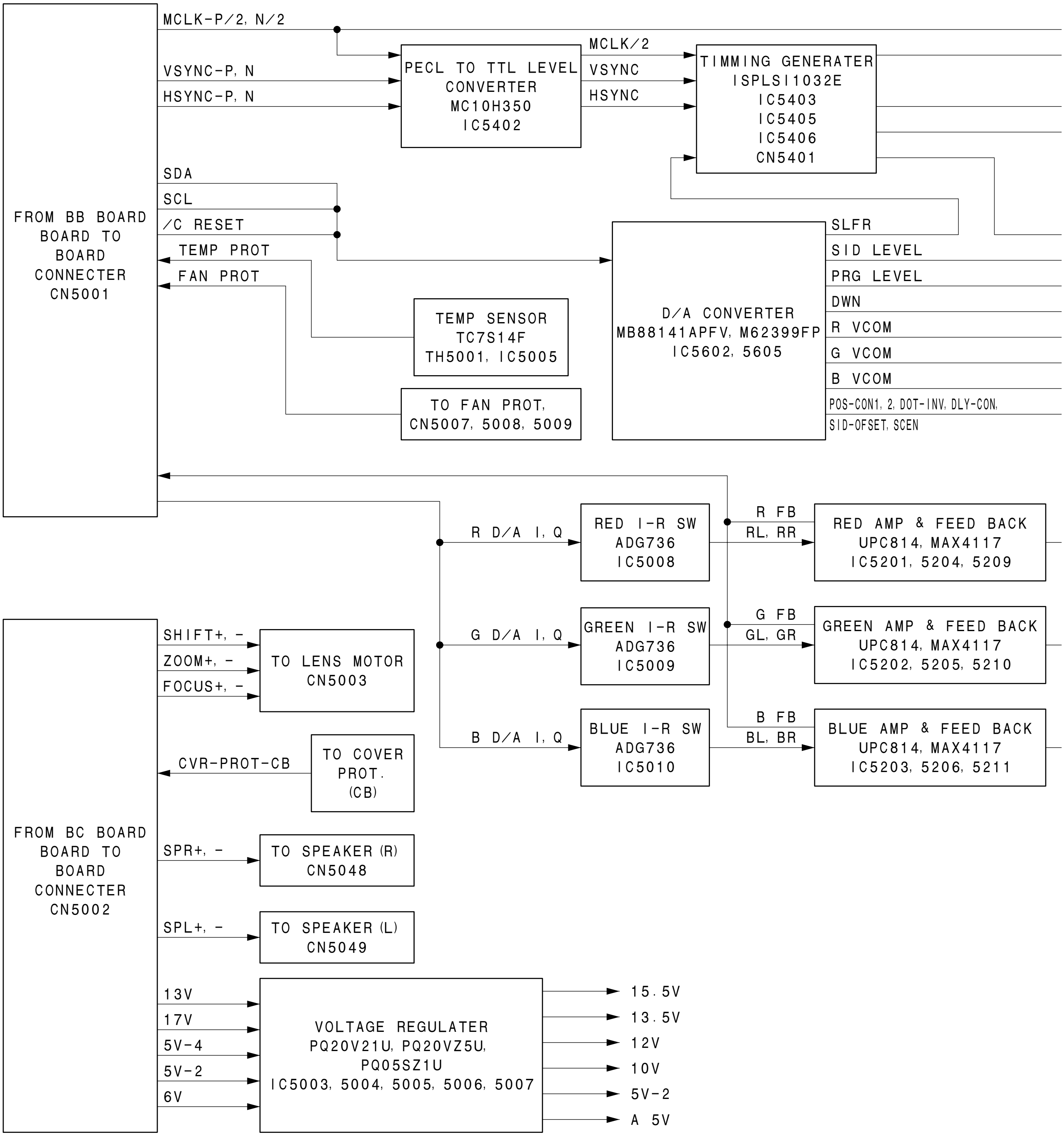


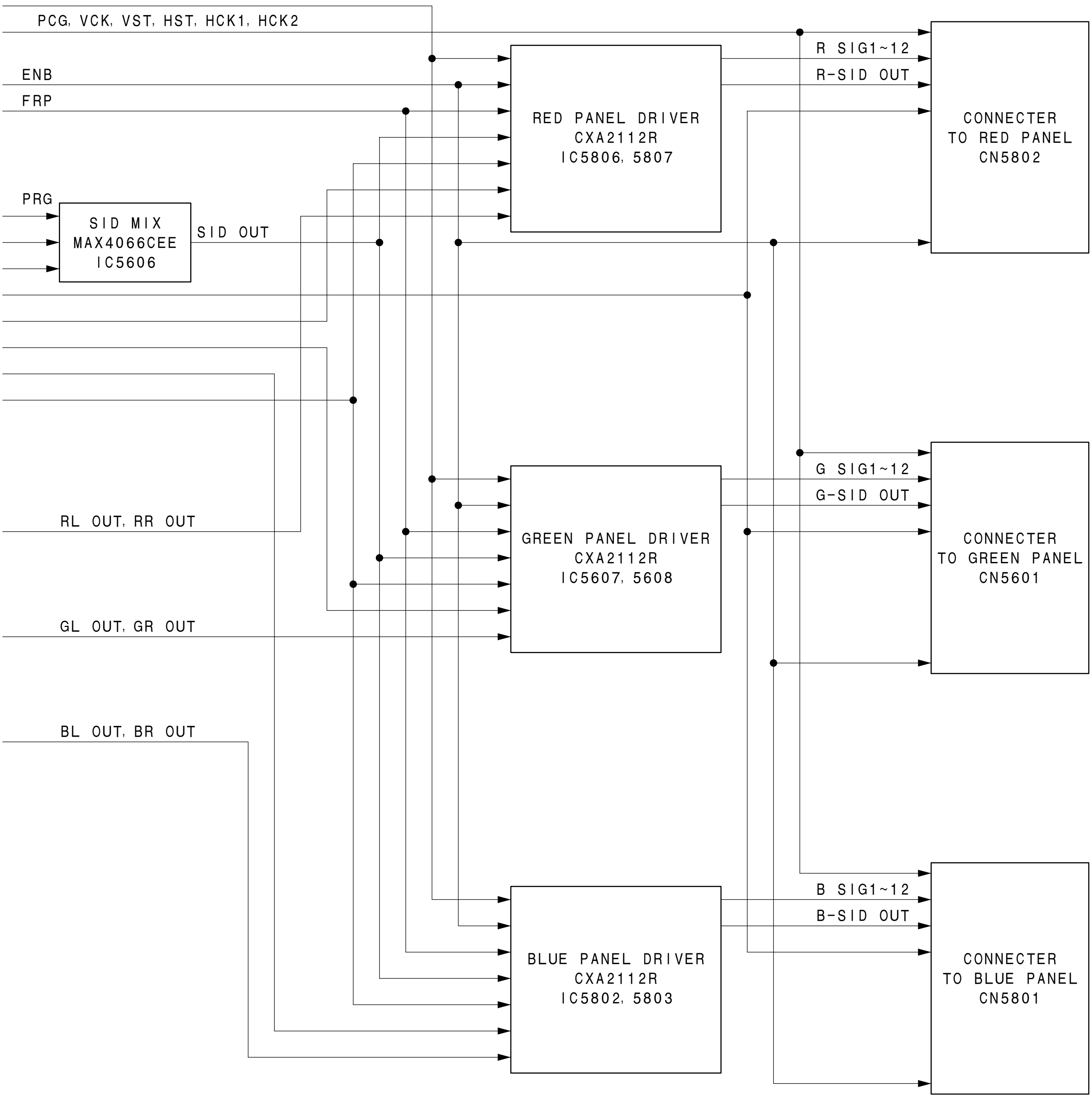
5-9. C Board

5-9-1. Outline

This board is composed of a circuit which drives video signals from the BB board to the LCD panel (LCX028).

5-9-2. C Board Block Diagram


FROM BB BOARD BOARD TO BOARD CONNECTER CN5001
MCLK-P/2, N/2
VSYNC-P, N
HSYNC-P, N
PECL TO TTL LEVEL CONVERTER MC10H350 IC5402
MCLK/2
VSYNC
HSYNC
TIMMING GENERATER ISPLSI1032E IC5403 IC5405 IC5406 CN5401
SDA
SCL
/C RESET
TEMP PROT
FAN PROT
TEMP SENSOR TC7S14F TH5001, IC5005
TO FAN PROT. CN5007, 5008, 5009
D/A CONVERTER MB88141APFV, M62399FP IC5602, 5605
SLFR
SID LEVEL
PRG LEVEL
DWN
R VCOM
G VCOM
B VCOM
POS-CON1, 2, DOT-INV, DLY-CON,
SID-OFSET, SCEN
R D/A I, Q
RED I-R SW ADG736 IC5008
R FB
RL, RR
RED AMP & FEED BACK UPC814, MAX4117 IC5201, 5204, 5209
G D/A I, Q
GREEN I-R SW ADG736 IC5009
G FB
GL, GR
GREEN AMP & FEED BACK UPC814, MAX4117 IC5202, 5205, 5210
B D/A I, Q
BLUE I-R SW ADG736 IC5010
B FB
BL, BR
BLUE AMP & FEED BACK UPC814, MAX4117 IC5203, 5206, 5211
FROM BC BOARD BOARD TO BOARD CONNECTER CN5002
SHIFT+, -
ZOOM+, -
FOCUS+, -
TO LENS MOTOR CN5003
CVR-PROT-CB
TO COVER PROT. (CB)
SPR+, -
TO SPEAKER (R) CN5048
SPL+, -
TO SPEAKER (L) CN5049
13V
17V
5V-4
5V-2
6V
VOLTAGE REGULATER PQ20V21U, PQ20VZ5U, PQ05SZ1U IC5003, 5004, 5005, 5006, 5007
15.5V
13.5V
12V
10V
5V-2
A 5V


PCG, VCK, VST, HST, HCK1, HCK2
ENB
FRP
PRG
SID MIX
MAX4066CEE
IC5606
SID OUT
RL OUT, RR OUT
GL OUT, GR OUT
BL OUT, BR OUT
RED PANEL DRIVER
CXA2112R
IC5806, 5807
GREEN PANEL DRIVER
CXA2112R
IC5607, 5608
BLUE PANEL DRIVER
CXA2112R
IC5802, 5803
R SIG1~12
R-SID OUT
G SIG1~12
G-SID OUT
B SIG1~12
B-SID OUT
CONNECTER
TO RED PANEL
CN5802
CONNECTER
TO GREEN PANEL
CN5601
CONNECTER
TO BLUE PANEL
CN5801

5-9-3. Main Functions of C Board

The PECL level 1/2 CLK (1/2 frequency clock of the master clock), V SYNC (vertical sync), and H sync (horizontal sync) supplied from the BB board are converted to the TTL level by the PECL-TO-TTL LEVEL. Using these signal, the timing pules for driving the LCD panel such as PCG and PRG are generated by the timing generator.

In the D/A converter, the data sent via the IICBUS is converted to voltage and levels such as VCOM are output.

The SID MIX generates binary signals to restrict the first and second levels of the PSIG signal and timing.

The RED I-Q switch, GREEN I-Q switch, and BLUE I-Q switch are composed of two channels (I and R) for each color (to obtain frequency characteristics, data of every other dot is sent by two signal lines). To correct the level difference between channels from the BB board, signals whose left and right sides (LR) have been switched for every H are returned to their original states based on the control signal from the BB board (SELECT). To deal with the changes in the display direction of the panel according to how the unit is installed, the SELECT signal is processed inside the timing generator to generate the SELECT OUT signal and switch I-R.

In the RED amplifier/feedback, GREEN amplifier/feedback, and BLIE amplifier/feedback, the level of the video signal whose L and R have been arranged for panel driving using the I-Q switch is converted to an appropriate input level of the panel driver. Furthermore, comparison with the reference power is performed, feedback for the REF I/O terminal of the D/A comparator on the BB board is performed to perform AGC operations.

In the RED panel driver, GREEN panel driver, and BLUE panel driver, the binary signal for PSIG made in the previous state is line inverted and amplified, and 12-dot sample-holding is performed after line inversion and amplification

for the video signal.

The operations of each block above control and drive the RED, GREEN, and BLUE LCD panels.

5-9-4. Timing Generator

This circuit is composed of the PLD (IC5403) for generating timings for controlling the LCD panel and IC5404 and IC5406 for buffering with the LCD panel. Inside the PLD, timings are generated while synchronizing with the H sync and V sync based on the 1/2 CLK.

Refer to the separate sheet for details on the timing.
The meaning of each signal is as follows.
HST: Start pulse for H shift register driving of the LCD panel.
HCK1: Clock for H shift register driving of the LCD panel.
HCK2: Reversal clock of HCK1.
VCK: Clock for V shift register driving of the LCD panel.
VST: Start pulse for V shift register driving of the LCD panel.
PCG: Uniformity improvement pulse of the LCD panel.
ENB: Enable input of the gate selection pulse of the LCD panel.
DIR-CON: Scan direction switching signal (H: Positive scan, L: Reverse scan)
PRG PLS: Pulse for restricting the width of the first stage of the PSIG (uniformity improvement signal of the LCD panel).
FRP: Reversal pulse of the video signal and PSIG
CLP: Video signal clamp pulse of the panel driver input
SELECT OUT: Switching pulse for rearranging the I-Q signal to LR signal.

5-9-5. RED (GREEN, BLUE) Amplifier/ Feedback Block

In the following, as the circuit structure of the amplifier and feedback blocks are the same for R, G, and B, only the RED amplifier/feedback is described.

This block is composed of the following circuits.

- Amplifier (IC5201:MAX4117) for converting the level of the video output of the BB board to the appropriate level for the input of IC5806 and IC5807 (CXA2112R) for panel driving of the panel driving block in the next stage.
- Buffer amplifier to the feedback circuit for configuring the D/A converter and AGC on the BB board, and comparator for feedback (IC5209:@micro@PC814).

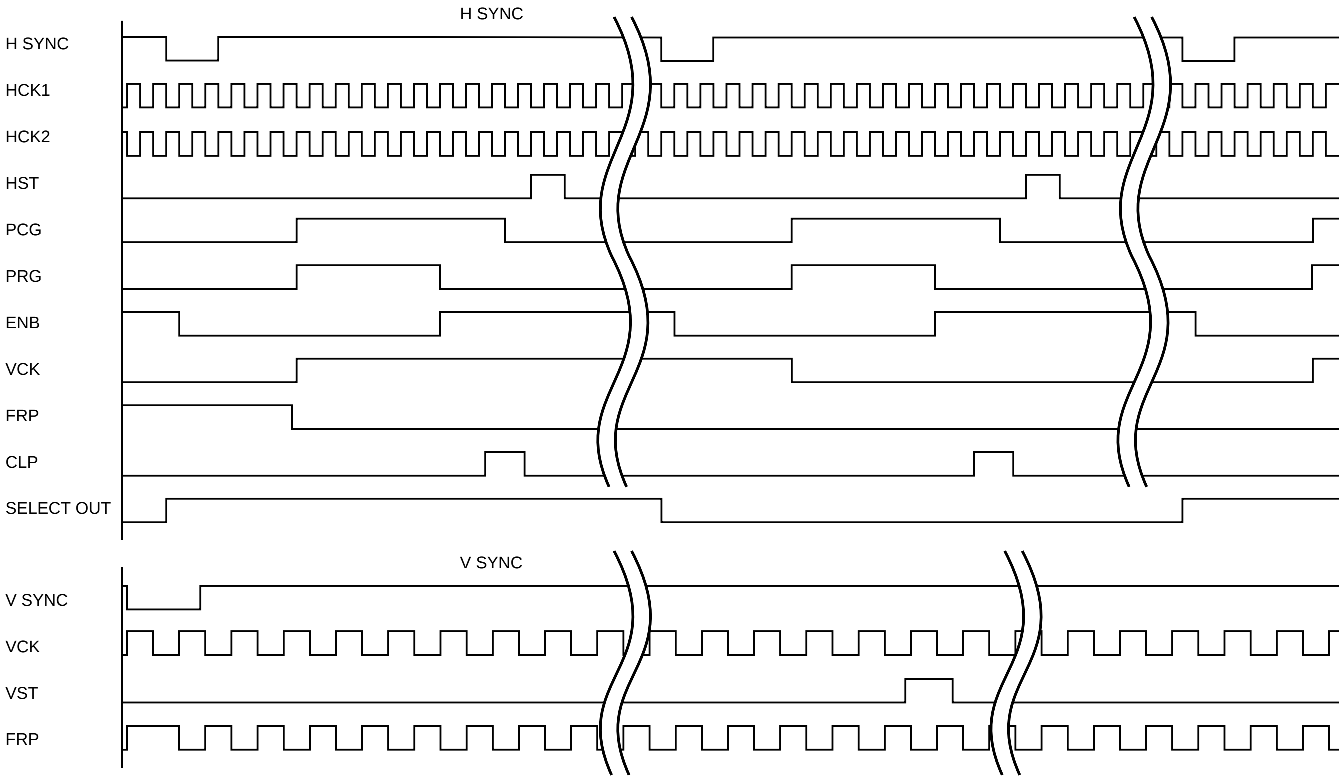
- Analog switch for removing the pedestal level from the video signal for feedback (IC5207: MAX4066CEE: same for R,G,B)
- Creates the reference level for comparing with the pedestal level using the comparator (IC5208: TLV431: same for R,G,B)

In this block, the feedback circuit is processed with only the R channel of L-R. This is because the L-R signal is switched by the H timing from the input of the D/A converter on the BB board to the I-Q switch block.

5-9-6. RED (GREEN, BLUE) Panel Drive

As the panel driver block has the same structure as the R,G, and B blocks, only R is described.
This block is composed with IC5806:CXA2112R and IC5807:CXA2112R) for two panel drivers.
The panel driver IC (CXA2112R) has a function which sample-holds the output of the line reversal amplifier with about 2.7 times gain and line reversal amplifier to 6 dots of the LCD panel, arranges the timing, and outputs to the LCD panel.
The LCD panel (LCX028) used in this unit operates on the 12-dot simultaneous sampling. Two CXA2112Rs are used. The video signal sent from the previous stage by 2-phase are input to the other CXA2112R one phase at a time. To drive the panel connected, the output of two CXA2112Rs are connected to the panel alternately. The binary signal made by the SID MIX block is line reversed and amplified, the PSIG is driven to the LCD panel by the transistor, and controlled by the R VCOM output from the D/A converter block, and the LCD panel is driven by the VCOM from the CXA2112R.

5-9-7. Timing Chart



5-10.M BOARD

5-10-1.Main CPU

C2202 is a 32 bit RISC microprocessor and performs the control of the whole unit.

5-10-2. Sub CPU

IC2703 is a 8bit microprocessor with three KEY inputs and one SIRCS input. It outputs I2C bus signals and performs data exchange with the main CPU.

5-10-3. EPROM

The programs for operating the unit and software for display OSDs are written in the flash memory while the programs for writing these are written in the EPROM IC2209.

5-10-4. Flash Memory for Program

The program for operating the unit is written in the flash memory IC2207.
Writing is performed via the RS-232C port.

5-10-5. Zero Power SRAM

IC2206 is a SRAM with built-in battery. It is used for memorizing the conditions of the unit.

5-10-6. INTERFACE IC (I/F IC)

The I/F IC IC2301 performs ① chip select output of the peripheral ICs according to the control of the MAIN CPU IC2202, ② serial communication with the ICs of the genesis, 3Dγ, APA, digital sync sep, and OSD, and ③data processing by the input/output port.
IC2002 to IC2005 is a 3 state buffer which prevents flow of the current from the serial data line ② above to the MAIN power supply during standby.

5-10-7.OSD Address Bus Data Bus Selection Circuit

IC2401 to IC2412 is a circuit for switching between the address bus for OSD and data bus. When writing the program in the FONT RPOM and TABLE ROM, it switches to the MAIN CPU side. During normal operations (menu display), FONT ROM and TABLE ROM are connected to the OSD IC side.
The switching control of the circuit is performed by Pin (91) of the I/F IC.
IC2413 is the FONT ROM while IC2414 is the TABLE ROM. These are written from the RS-232C port by the flash memory for the OSD.

5-10-8. OSD

IC2501 expands the pulse width of the Hsync input of the OSD IC to 1.5 µsec.
The character data generated by OSD IC IC2505 is input to IC2511. IC2511 is a 5bit/4bit encoder, and the data is synchronized to the dot clock, output, and input to the OSD SCANCONVERTER IC2601. The OSD SCANCONVERTER writes the data in the SRAM IC2607 and IC2608, reads it later and displays the menu in the VGA mode regardless of the image mode. IC2611 is a 4bit/6bit decoder.

5-10-9. LCD Module Control

The LCD module is controlled from MAIN CPU through the buffers IC2007 and IC2008. The direction for reading the data is determined by IC2001 and IC2010.

5-10-10.Protector Circuit

(1) Cover Protector
The switches of the PH601 (LAMP cover) of the UA board, S701 (filter cover) of the UB board, and S751 of the UC board (lens cover) are connected in a series. When one is turned off, Pin (114) of the MAIN CPU IC2202 becomes H, and the COVER FAIL LED of the control panel lights up. Only this protector is effective during the standby state. When the protector is operating, the power cannot be turned ON. The protector can be released by turning ON the switch.

(2) FAN protector
When any one of the 7 fans stop, Pin (100) of the MAIN CPU IC2202 becomes H, the FAN FAIL LED of the control panel lights up, and returns immediately into the standby state.

(3) Temperature protector
When the thermal switch S901 of the V board goes OFF, or the thermistor TH101 of the C board detects temperature abnormality, Pin (113) of the MAIN CPU IC2202 becomes H. When this state continues for a certain period of time, the HIGH TEMP LED of the control panel

lights up, the LAMP goes OFF, and cooling operations starts.

(4) LAMP protector
When LAMP PROT 1 to 4 are input to Pins ㉛, ㉜, ㉞, and ㊱ of the MAIN CPU independently, and the lamps goes off, the line that went off becomes H.
When the power is turned ON, if there is a lamp which had not turned on, the LAMP FAIL LED corresponding to the control panel blinks, and attempts to light up 30 seconds later. If the lamp lights up then, the LED goes off. If the lamp does not light up, the LED lights up.
In whichever case, when more than two lamps go off, all lamps are turned OFF and cooling starts.

5-10-11. LAMP CONT Control Circuit

The LAMP CONT line is output via the 3 state buffer IC2001. When the thermal fuse F901 of the V board is cut by the heat generated in the lamp, the enable terminal of this IC becomes H, the output is turned OFF, and the lamp goes off.

5-10-12. Communication Circuit

External communication is by any of 3 types:
RS-232C, RS-422A, or PJ-COM. The RS-232C and RS-422A are switchable by SW S2901 on the rear panel.
This is also switchable by way of internal INPUT-C installed in WINDOWS-CE.

The 7 respective lines of the RS-232C , RS-422A and INPUT C are switched by one switch and 3 relays.
In this case, switching is done in terms of the hardware, and the CPU communicates using the same protocols.
The PJ COM is used for connecting and controlling several units and switches PC-3000 together.
In these two serial communications, data is converted to parallel data by the S/P CONVERTER IC2902, and exchanged with the main CPU.

5-10-13.Rotary Switch

S2702 and S2703 is a rotary switch for setting the ID number of the unit. Please use between 01 and 99.

5-10-14.POWER on Trigger Output Circuit

When the MAIN power is turned ON, 12V voltage is output to the POWER ON TRIGGER terminal.
The output resistance is about 4.7 kΩ.

5-10-15. SIRCS Circuit

The SIRCS light-receiving unit is provided on the FRONT (N board) and REAR (H board) of the unit.
At shipment, both are set to ON. The light-receiving area can be switched by noise elimination measures such as the fluorescent lamp, etc. Switching can be performed on the menu. Other than the above setting, three other types of settings can be selected-FRONT only, REAR only, both OFF. This is performed by IC2006, but this control signal is output from Pins (207) (FRONT), (20°) (REAR) of the I/F IC IC2301. When the control signal is L, the SIRCS signal is input. IC2006 also integrates the FRONT and REAR SIRCS signals into one, which is then input to IC2703 SUB CPU via the CONTROL-S IN of the rear panel. It can also be output from CONTROL-S OUT in parallel form.
When a wired remote control is connected to CONTROL-S IN, this is given priority and the circuit from the light-receiving area will be cut.

5-10-16. Remote Control Power

When the remote control is used by the wired method, power is supplied from SUB5V. This monitors the current flowing to R2909, and when a current above the specified value flows, the transistor switch Q2908 goes OFF to prevent the overcurrent. When the LIGHT of the remote control is OFF, the specified value I_1 is about 60 mA and that I_2 when LIGHT is ON is about 400 mA.
Set the CONTROL-S IN power line to non-load, and adjust RV2901 so that the output of IC2903 (1/2) becomes 0 (30 mV+-10 mV).

As the drop in voltage by R2909 is controlled to a small value, the voltage of both terminals is amplified 33 times by IC2903 (1/2). IC2903 (2/2) is a comparator, and when the output of IC2903 (1/2) is smaller than the specified value, the output of IC2903 (2/2) becomes H, driver Q2906 and switch Q2908 turn ON, so that the current can be supplied.

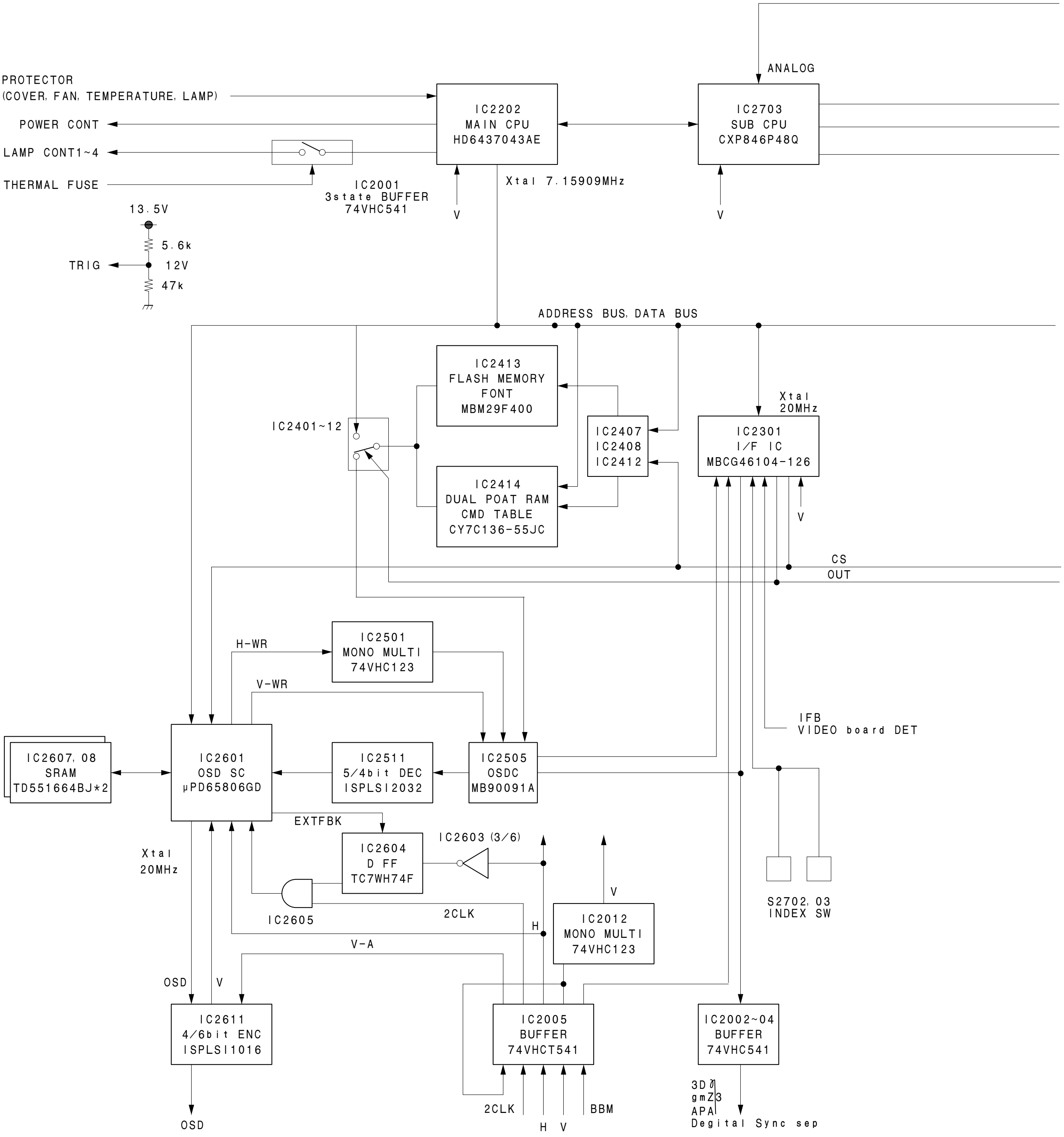
When the LIGHT ON command is received from the wired remote control, Pin (213) of I/F IC IC2301 (WRCL output) becomes H for one second, Q2901 and Q2902 turn ON, and the specified value switches to I_2. IC2905 (1/4) is a comparator which reverses the output when current above 100 mA flows to the power supply line, when power consumption of the remote controller exceeds this for one second, IC2905 (1/4) maintains this state because Q2902 continues to remain ON. When the remote control LIGHT goes OFF after the specified ime, the consumption current drops below 100 mA,

5-10-17.WINDOWS CE Wireless Mouse Circuit

The wireless mouse IR signal received by the SIRCS light sensor is input to IC2704 of the mouse decoder IC, and sent as the USB output of that IC to the QC board.

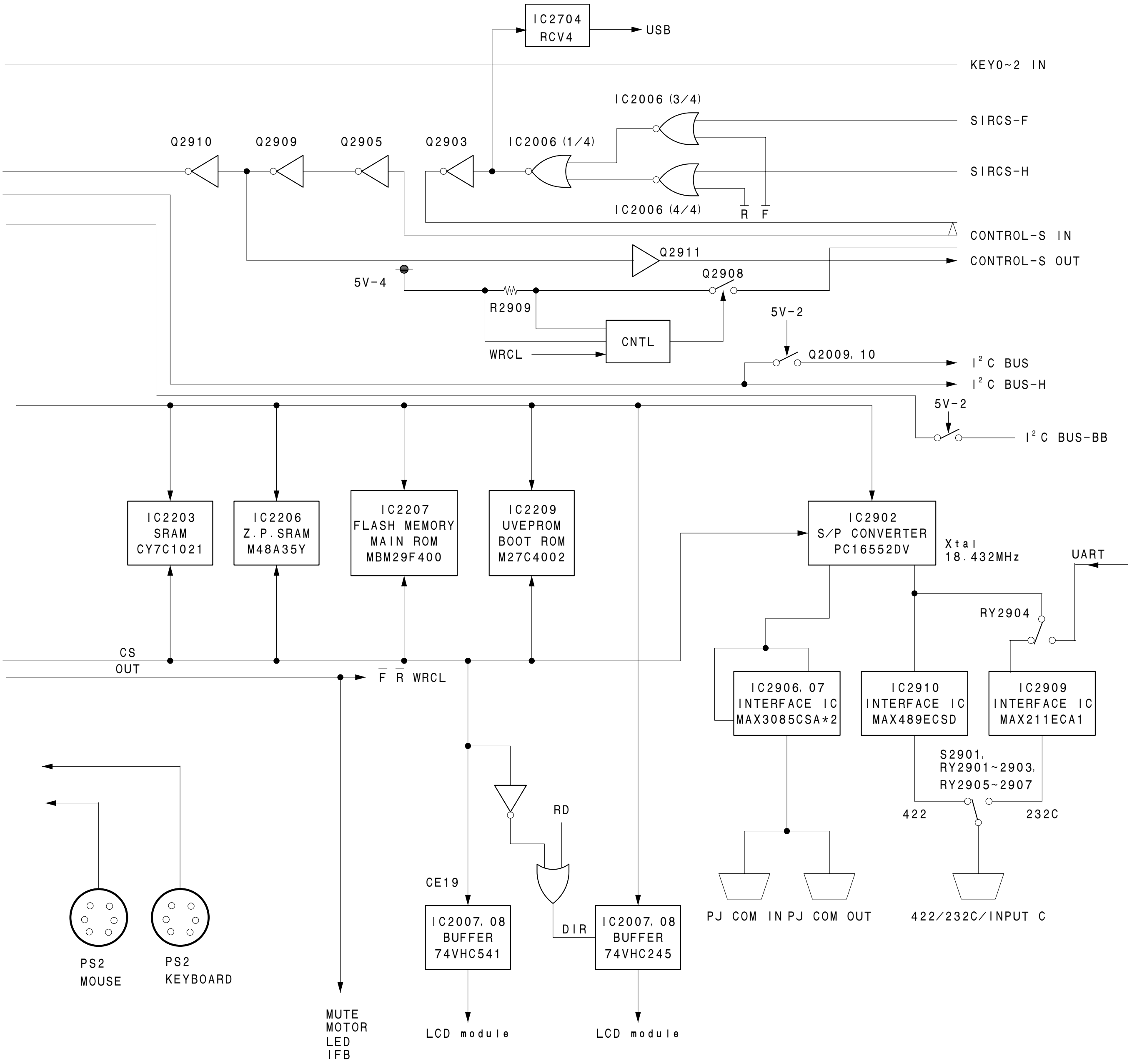
5-10-18.PS2 Mouse Keyboard

The PS2 mouse keyboard signal for shifting position on the WINDOWS CE is input from CN2803, CN2804 and sent to the QC board.


PROTECTOR
(COVER, FAN, TEMPERATURE, LAMP)
POWER CONT
LAMP CONT1~4
THERMAL FUSE
IC2001
3state BUFFER
74VHC541
13.5V
5.6k
TRIG
12V
47k
IC2202
MAIN CPU
HD6437043AE
V
Xtal 7.15909MHz
ANALOG
IC2703
SUB CPU
CXP846P48Q
V
ADDRESS BUS, DATA BUS
IC2413
FLASH MEMORY
FONT
MBM29F400
IC2401~12
IC2407
IC2408
IC2412
Xtal
20MHz
IC2301
I/F IC
MBCG46104-126
V
IC2414
DUAL POAT RAM
CMD TABLE
CY7C136-55JC
CS
OUT
H-WR
IC2501
MONO MULTI
74VHC123
V-WR
IFB
VIDEO board DET
IC2607, 08
SRAM
TD551664BJ*2
IC2601
OSD SC
μPD65806GD
IC2511
5/4bit DEC
ISPLSI2032
IC2505
OSDC
MB90091A
EXTFBK
IC2604
D FF
TC7WH74F
IC2603 (3/6)
Xtal
20MHz
IC2605
2CLK
V
IC2012
MONO MULTI
74VHC123
H
V-A
S2702, 03
INDEX SW
OSD
V
IC2611
4/6bit ENC
ISPLSI1016
IC2005
BUFFER
74VHCT541
IC2002~04
BUFFER
74VHC541
OSD
2CLK
H
V
BBM
3Dγ
gmZ3
APA
Degital Sync sep

5-10-19. WINDOWS CE Power-on Circuit

When S2901 switches to INPUT-C, software information is sent to IC2301 (interface IC) by way of IC2912. An ON signal is also sent by the circuit hardware Q2016, Q2015 to the CE power supply to turn on the CE power.


IC2704
RCV4
USB
KEY0~2 IN
IC2006 (3/4)
SIRCS-F
Q2910
Q2909
Q2905
Q2903
IC2006 (1/4)
SIRCS-H
IC2006 (4/4)
R F
CONTROL-S IN
Q2911
CONTROL-S OUT
5V-4
Q2908
R2909
5V-2
CNTL
WRCL
Q2009, 10
I²C BUS
I²C BUS-H
5V-2
I²C BUS-BB
IC2203
SRAM
CY7C1021
IC2206
Z.P.SRAM
M48A35Y
IC2207
FLASH MEMORY
MAIN ROM
MBM29F400
IC2209
UVEPROM
BOOT ROM
M27C4002
IC2902
S/P CONVERTER
PC16552DV
Xtal
18.432MHz
UART
RY2904
CS
OUT
F R WRCL
IC2906, 07
INTERFACE IC
MAX3085CSA*2
IC2910
INTERFACE IC
MAX489ECSD
IC2909
INTERFACE IC
MAX211ECA1
S2901,
RY2901~2903,
RY2905~2907
422
232C
RD
CE19
IC2007, 08
BUFFER
74VHC541
DIR
IC2007, 08
BUFFER
74VHC245
PJ COM IN
PJ COM OUT
422/232C/INPUT C
PS2
MOUSE
PS2
KEYBOARD
MUTE
MOTOR
LED
IFB
LCD module
LCD module

http://getMANUAL.com

5-11.H board

5-11-1. KEY Output

8 resistors are connected in a series in correspondence to the 8 keys. Analog voltage is output according to the key pressed. This voltage is input to the A/D port of the SUB CPU IC2703 of the M board to perform key differentiation. There are three blocks from KEYs 0 to 2, so up to 24 keys can be differentiated.

5-11-2. Key Illumination

There are 24 LEDs (orange) for key illumination. Of these, ON, STANDBY, and LIGHT are always ON. Other LEDs turn ON and OFF when the LIGHT key is pressed.
At the same time the power supply line for backlight of the LCD module (P-LED) also turns ON and OFF.
When the 10 keys-MENU, UP, DOWN, LEFT, RIGHT, FOCUS, SHIFT, ZOOM, RESET, and ENTER can be used, the green LED lights up. This setting is performed by the I2C bus decoder IC6301, and IC6303 (the addresses are 94 and 9A).
IC6302 and IC6304 are LED drivers.

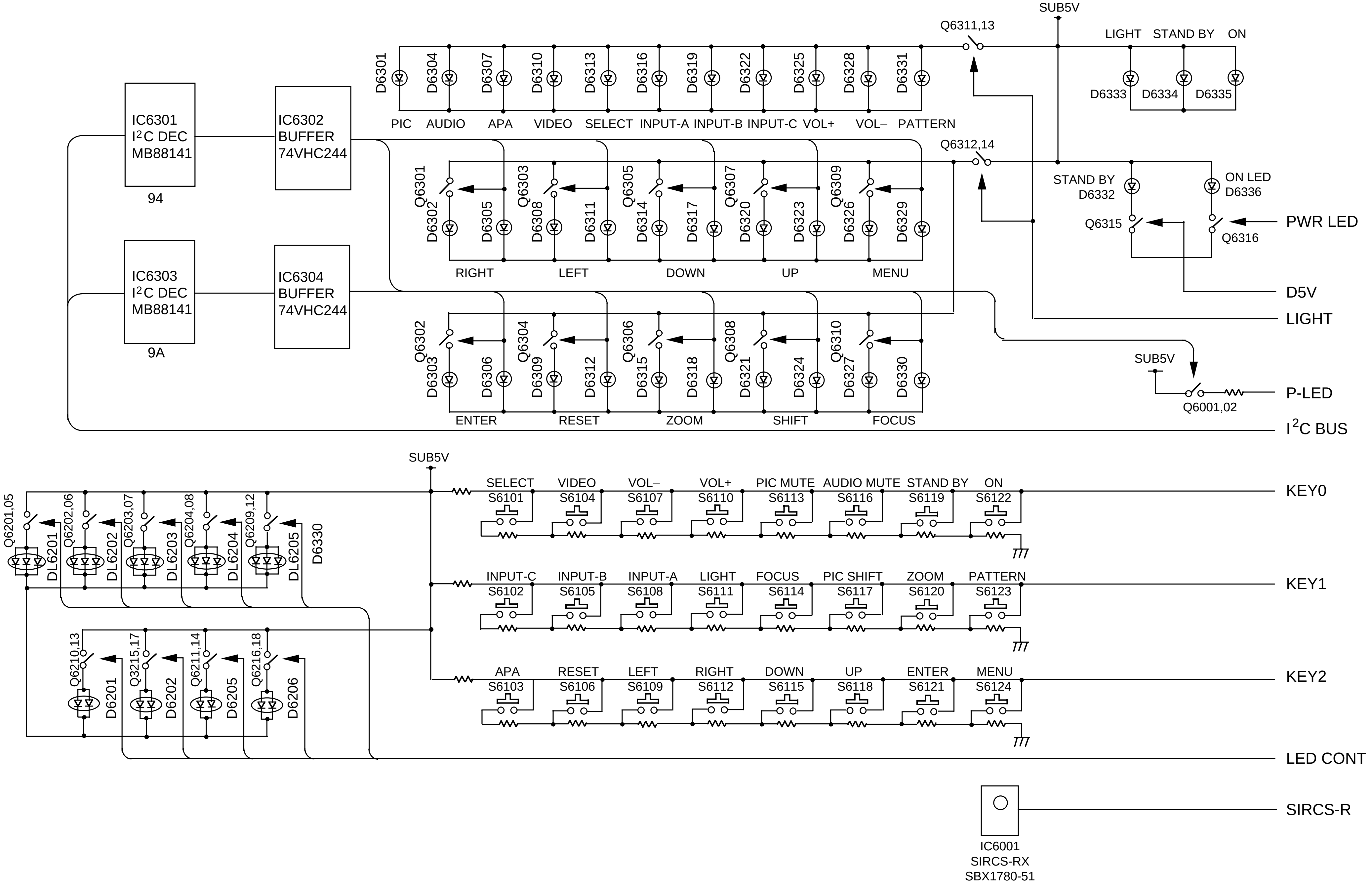
5-11-3. Status Display LED

The LAMP FAIL, COVER FAIL, FAN FAIL, and HIGH TEMP warning (red) and POWER SAVING status (orange) is displayed by the surface illuminating LED.
Control is performed directly by the I/F IC IC2301.

5-11-4. SIRCS Light-receiving Area

There is one SIRCS light-receiving area IC6001. It receives

H BOARD BLOCK DIAGRAM



IC6301
I²C DEC
MB88141
94
IC6302
BUFFER
74VHC244
IC6303
I²C DEC
MB88141
9A
IC6304
BUFFER
74VHC244
D6301
D6304
D6307
D6310
D6313
D6316
D6319
D6322
D6325
D6328
D6331
PIC
AUDIO
APA
VIDEO
SELECT
INPUT-A
INPUT-B
INPUT-C
VOL+
VOL–
PATTERN
SUB5V
Q6311,13
Q6312,14
LIGHT
STAND BY
ON
D6333
D6334
D6335
STAND BY
D6332
ON LED
D6336
Q6315
Q6316
PWR LED
Q6301
Q6303
Q6305
Q6307
Q6309
D6302
D6305
D6308
D6311
D6314
D6317
D6320
D6323
D6326
D6329
RIGHT
LEFT
DOWN
UP
MENU
D5V
LIGHT
Q6302
Q6304
Q6306
Q6308
Q6310
D6303
D6306
D6309
D6312
D6315
D6318
D6321
D6324
D6327
D6330
ENTER
RESET
ZOOM
SHIFT
FOCUS
SUB5V
Q6001,02
P-LED
I²C BUS
SUB5V
Q6201,05
Q6202,06
Q6203,07
Q6204,08
Q6209,12
DL6201
DL6202
DL6203
DL6204
DL6205
D6330
Q6210,13
Q3215,17
Q6211,14
Q6216,18
D6201
D6202
D6205
D6206
SELECT
S6101
VIDEO
S6104
VOL–
S6107
VOL+
S6110
PIC MUTE
S6113
AUDIO MUTE
S6116
STAND BY
S6119
ON
S6122
KEY0
INPUT-C
S6102
INPUT-B
S6105
INPUT-A
S6108
LIGHT
S6111
FOCUS
S6114
PIC SHIFT
S6117
ZOOM
S6120
PATTERN
S6123
KEY1
APA
S6103
RESET
S6106
LEFT
S6109
RIGHT
S6112
DOWN
S6115
UP
S6118
ENTER
S6121
MENU
S6124
KEY2
LED CONT
IC6001
SIRCS-RX
SBX1780-51
SIRCS-R

5-12.Program Structure

The FE110 software is compatible with the uploader and has the following configuration.

5-12-1. At Booting

The main CPU accesses the boot program at AC ON, and performs booting such as checking the work RAM and checking the checksum of the flash ROM. During this process (which lasts about 1 or 2 seconds), the LCD panel at the back will display “SYSTEM CHECKING”.
Also the following may be displayed;

1) If a SRAM access error occurs, “SRAM ERROR!!” will be displayed.
2) If a checksum error occurred in the program and OSD data, “NEED UPLOAD IN EMERGENCY MODE” will be displayed.

5-12-2. Normally

If booting completes normally, the CPU accesses the main program next. At this time, the IC of the OSD controller accesses the OSD and font device, the bus from the CPU is disconnected and does not access these devices.
Using the application mentioned later, the software upload mode can be set from this normal mode.

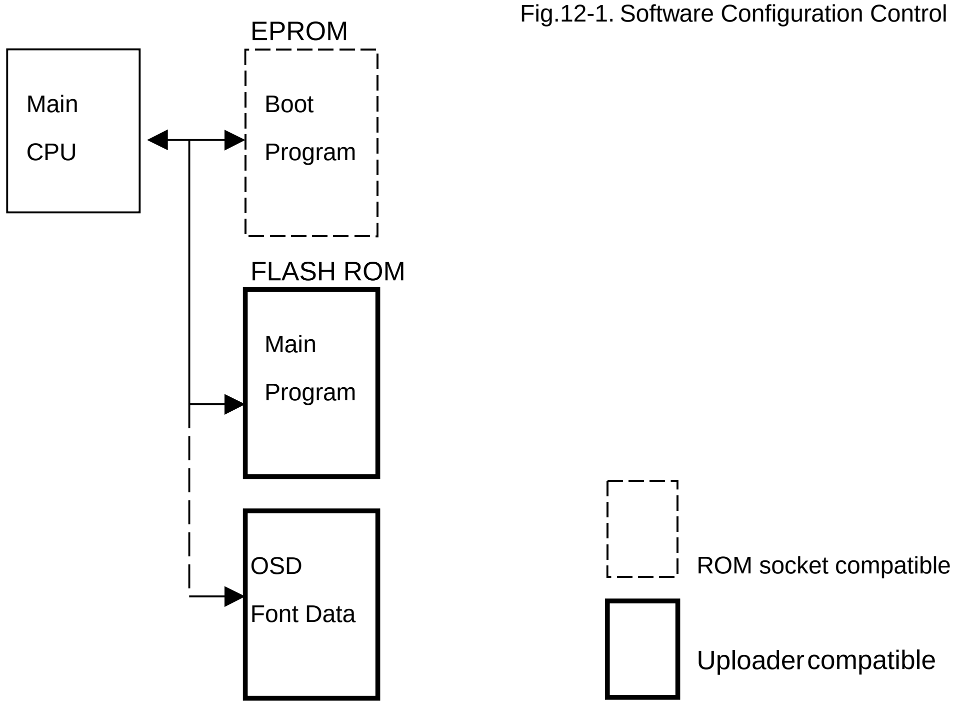

EPROM
Main CPU
Boot Program
FLASH ROM
Main Program
OSD Font Data
ROM socket compatible
Uploader compatible

Fig.12-1. Software Configuration Control

5-12-3. In software upload mode

Normally, using the application, select the software version to be uploaded and execute to move to this mode. At this time, the CPU executes the upload process routine in the boot program and updates the main program, OSD font data in the figure.

5-12-4. Emergency mode

As mentioned earlier, if the checksum of the program and OSD data do not match during booting, “NEED UPLOAD IN EMERGENCY MODE” will be displayed and this mode set. The software cannot be operated if it is not completely uploaded (disconnection of power supply, disconnection of cable, etc.), In this case, upload the software in this mode. Use the exclusive application described to select the EMERGENCY mode and upload the software.

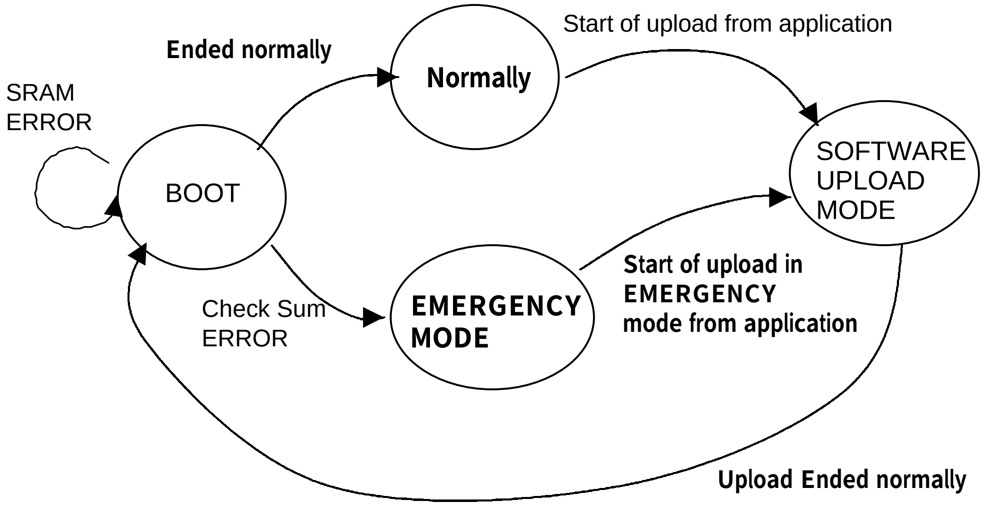

SRAM ERROR
BOOT
Ended normally
Normally
Start of upload from application
SOFTWARE UPLOAD MODE
Check Sum ERROR
EMERGENCY MODE
Start of upload in EMERGENCY mode from application
Upload Ended normally

Fig.12-2. Transition of Boot/Upload

5-13. Software upload

5-13-1. Version Upgrade

Normally, the version of the main software is upgraded using the special Windows application and via the RS232C/422A communication port of the device. To upgrade the version, the following will be required;PC/AT compatible device installed with OS after Windows 95 which can communicate at a baud rate of 38.4k bps, special application, version upgrade software, RS232C cross cable (level converter for 422A).

- Refer to the other document.

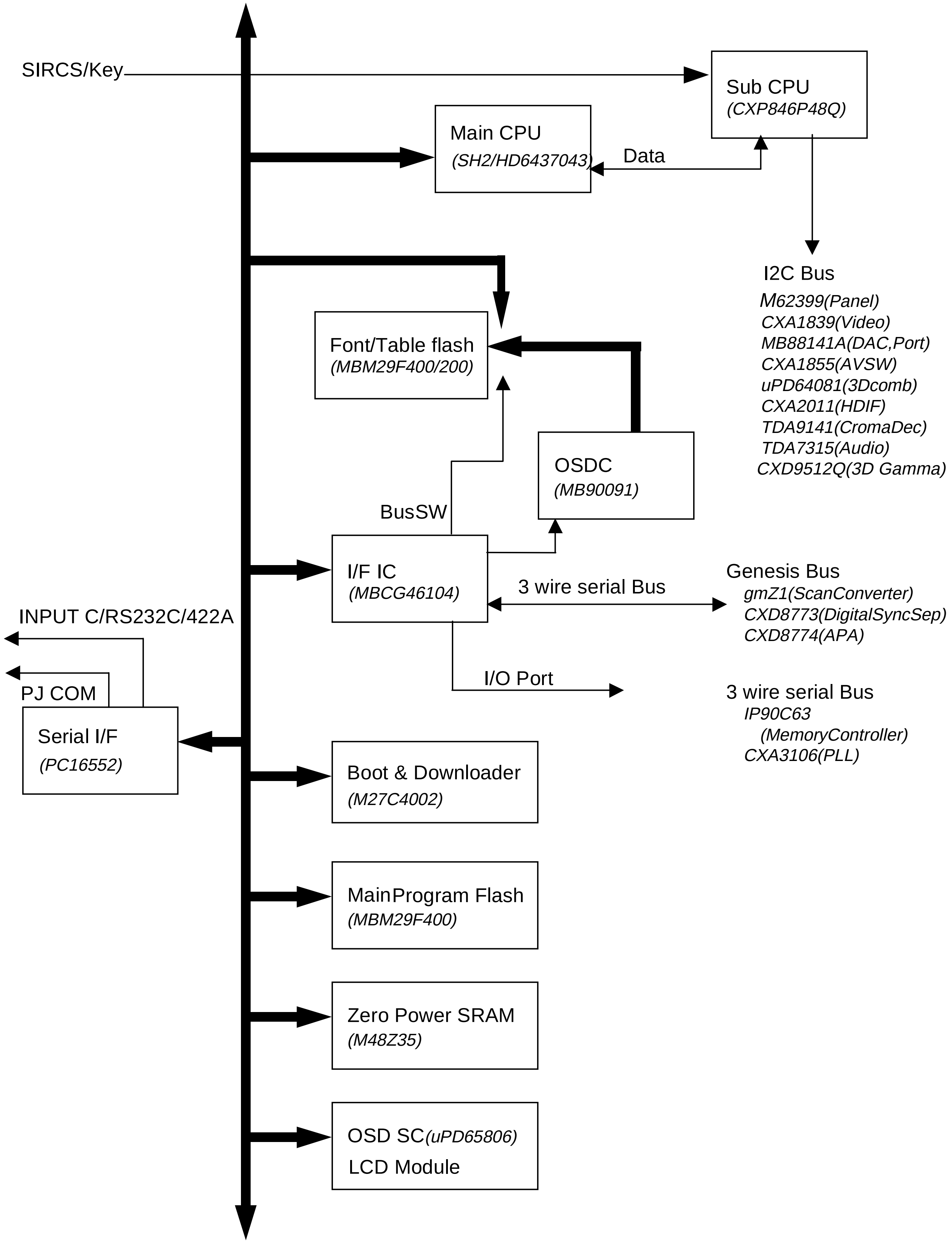
5-13-2. Set of Files Required for Uploading FE110

The following files required for uploading are supplied in the compressed form in the file set. Decompress them in the desired directory.

- VPLFE110VC0100.pjv version control file
- ie2m0100.mot Motorola format data file
- iie2f0100.mot Motorola format data file

The 4 digit number indicates the version.

The name of the Motorola data files is described in the version control file. If the names are different, the application will not be able to acknowledge the files, and as a result, the files cannot be uploaded.
Make sure not to change the file names.


SIRCS/Key
Sub CPU
(CXP846P48Q)
Main CPU
(SH2/HD6437043)
Data
I2C Bus
M62399(Panel)
CXA1839(Video)
MB88141A(DAC,Port)
CXA1855(AVSW)
uPD64081(3Dcomb)
CXA2011(HDIF)
TDA9141(CromaDec)
TDA7315(Audio)
CXD9512Q(3D Gamma)
Font/Table flash
(MBM29F400/200)
OSDC
(MB90091)
BusSW
I/F IC
(MBCG46104)
3 wire serial Bus
Genesis Bus
gmZ1(ScanConverter)
CXD8773(DigitalSyncSep)
CXD8774(APA)
INPUT C/RS232C/422A
PJ COM
I/O Port
3 wire serial Bus
IP90C63
(MemoryController)
CXA3106(PLL)
Serial I/F
(PC16552)
Boot & Downloader
(M27C4002)
MainProgram Flash
(MBM29F400)
Zero Power SRAM
(M48Z35)
OSD SC(uPD65806)
LCD Module

5-14.Memory structure

The VPL-FE110 memory structure is based on the S800 memory structure. It is divided into the following blocks;

1) Set memory
2) Channel memory
3) White balance memory
4) Device Adjust memory.

All data in the ROM will be written in the zero power RAM at the first AC IN, after which the data of the zero power RAM required for the current image (such as input state) will be selected from each memory block at Power On, sent to the work RAM, and to the other devices. When the user adjusts a certain item, the data will automatically or by trigger memory operations be written in the zero power RAM, and saved in this RAM.

Memory automatically memorized the data;

- Set memory
- Channel memory
- Status memory

Memory saved by memory operations;

- Color temperature memory
- device memory

The device memory is further divided into the following items;

- Set memory : Set according to the status memory category of 3)
- Other memory : Item which only can be set one at a time for each set
- Status memory : Item which can be set for specific combinations for every different signal

For other memories and status memories, when the input signal changes, the data is reloaded from the zero power RAM. Therefore before changing the signal, there is a need to operate the memory.

The status memory is composed of;

1) Preset memory
2) User memory

The preset memory is a memory which is provided for every one of the 49 types of signals and has data in the ROM. When the preset signal is input, the memory will be selected. Even when an unknown signal is input, a more appropriate preset signal will be selected as the default. When the user adjusts the data (changed from the default value), the data is stored with the channel information in the user memory. When the same signal is input in the same channel the next time, the data in this user memory can be loaded. There are 200 user memories altogether. The 201th new data will be saved in the user memory that was used least frequently amongst the 200 memories.

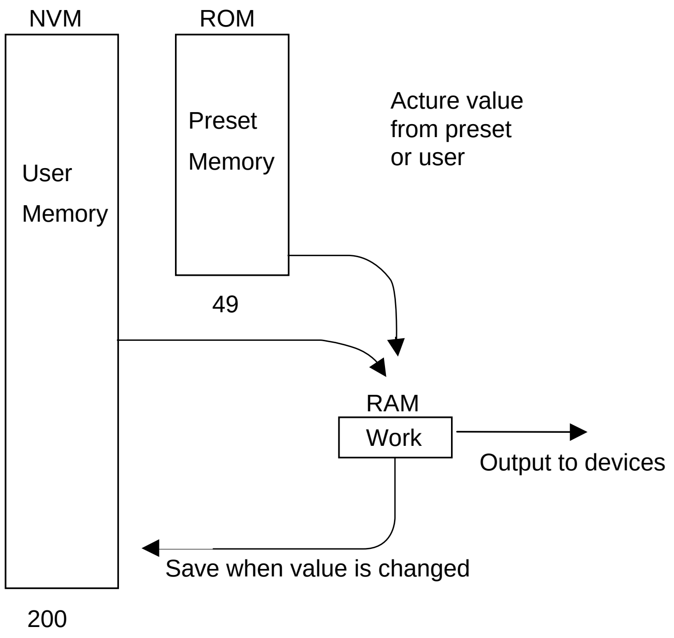


Fig.14-1. Status Memory Concept

One point to note is that when the W/B adjustment value and device adjustment value are memorized after changing, and stored in the zero power RAM, as the Zero Power RAM value be loaded at RESET, it cannot be returned to the value at shipment. As the other data are automatically memorized, the values at shipment will be lost when adjustments are performed. However as they are originally based on the ROM data, they can be returned by RESET.

Channel Memory Initial Value

		Initial value	Remark
PICTURE CTRL	CONTRAST	80	
	BRIGHT	50	
	COLOR	50*	
	HUE	50*	
	SHARP	50*	
	D.PICTURE	OFF*	
	COLOR TEMP	HIGH	Only Video CH Low
	COLOR SYS	AUTO*	
	GAMMA MODE	GRAPHICS*	

Set Memory Initial Value

		Initial value	Remark
SET SETTING	STATUS	ON	
	SPEAKER	ON	
	LANGUAGE	ENGLISH	Only J Japanese
	INSTALLATION	FLOOR-FRONT	
	POWER SAVING	OFF	
	SIRCS RECEIVER	FRONT&REAR	
	GROUP INDEX	1	
SIGNAL SELECT	INPUT-A	RGB*	
	INPUT-B	RGB*	
SERVICE SETTING	LENS Control	ON	
	ON DELAY	OFF	
	RS-232C/422A	38.4K	Fixed
	PJ COM	38.4K	
	LAMP No.	1-2-3-4	

W/B Memory Initial Value

		HIGH	LOW
W/B ADJUST	GAIN R	216	216
	G	216	216
	B	216	216
	BIAS R	85	85
	G	85	85
	B	85	85

＊Initial Value available to set up

Status Memory Initial Value

			INPUT SETTING														
										SC ON/ASPECT 4:3 /NO SC				SC OFF/ASPECT 16:9			
	Resolution Display	Name	DotPhase	H Size	H Shift(New)	V Shift	ScanConv	Aspect	H Filter	R Blanking	L Blanking	T Blanking	B Blanking	R Blanking	L Blanking	T Blanking	B Blanking
1	VIDEO/60	VIDEO 60Hz	0	1633	212	39		4:3		0	0	32	32	0	0	152	152
2	VIDEO/50	VIDEO 50Hz	0	1658	182	52		4:3		0	0	32	32	0	0	152	152
3	15k/60	15KRGB(60Hz)	0	1633	228	39		4:3		0	0	32	32	0	0	152	152
4	15k/50	15KRGB(50Hz)	0	1658	200	52		4:3		0	0	32	32	0	0	152	152
5	HDTV	HDTV*	0	1543	293	27				0	0	152	152				
6	640x350	VGA-1(VGA350)	0	800	342	61	ON			0	0	162	162	320	320	337	337
7		VESA 85(VGA350)	0	832	334	56	ON			0	0	162	162	320	320	337	337
8	640x400	NEC PC98	0	848	349	26	ON			0	0	112	112	320	320	312	312
9		VGA-2(TEXT)/VESA70	0	800	350	29	ON			0	0	112	112	320	320	312	312
10		VESA 85(VGA400)	0	832	334	37	ON			0	0	112	112	320	320	312	312
11	640x480	VESA 60	0	800	350	28	ON			0	0	32	32	320	320	272	272
12		Mac 13	0	864	334	34	ON			0	0	32	32	320	320	272	272
13		VESA 72	0	832	326	24	ON			0	0	32	32	320	320	272	272
14		VESA 75(IBM M3)	0	840	310	12	ON			0	0	32	32	320	320	272	272
15		VESA 85(IBM M4)	0	832	358	21	ON			0	0	32	32	320	320	272	272
16	800x600	VESA 56	0	1024	294	17	ON			0	0	32	32	240	240	212	212
17		VESA 60	0	1056	278	20	ON			0	0	32	32	240	240	212	212
18		VESA 72	0	1040	311	22	ON			0	0	32	32	240	240	212	212
19		VESA 75(IBM M5)	0	1056	255	17	ON			0	0	32	32	240	240	212	212
20		VESA 85	0	1048	279	23	ON			0	0	32	32	240	240	212	212
21	832x624	Mac 16	0	1152	207	35	ON			0	0	32	32	224	224	200	200
22	1024x768	VESA 43(8514)	0	1264	263	18	ON			0	0	32	32	128	128	128	128
23		VESA 60	0	1344	199	28	ON			0	0	32	32	128	128	128	128
24		VESA 70	0	1328	216	28	ON			0	0	32	32	128	128	128	128
25		VESA 75	0	1312	224	24	ON			0	0	32	32	128	128	128	128
26		VESA 85	0	1376	193	32	ON			0	0	32	32	128	128	128	128
27	1152x864	VESA 70	0	1472	208	42	ON			0	0	32	32	64	64	80	80
28		VESA 75	0	1600	113	28	ON			0	0	32	32	64	64	80	80
29		VESA 85	0	1568	146	39	ON			0	0	32	32	64	64	80	80
30	1152x900	SUN LO	0	1504	172	28	ON			25	25	32	32	64	64	62	62
31		SUN HI	0	1472	193	33	ON			25	25	32	32	64	64	62	62
32	1280x960	VESA 60	0	1800	73	32	OFF			0	0	32	32	0	0	32	32
33		VESA 75	0	1728	114	32	OFF			0	0	32	32	0	0	32	32
34	1280x 1024	VESA 43	0	1696	144	17	OFF			40	40	32	32	0	0	0	0
35		SGI-5	0	1680	130	32	OFF			40	40	32	32	0	0	0	0
36		VESA 60	0	1696	145	36	OFF			40	40	32	32	0	0	0	0
37		SXGA VESA 75	0	1688	106	36	OFF			40	40	32	32	0	0	0	0
38		SXGA VESA 85	0	1728	115	42	OFF			40	40	32	32	0	0	0	0
39	1600x1200	UXGA VESA 60	0	1689	138	33			ON	0	0	32	32				
40		UXGA VESA 65	0	1689	138	33			ON	0	0	32	32				
41		UXGA VESA 75	0	1689	139	33			ON	0	0	32	32				
43	480/60p	480/60p (x2 NTSC)	0	1605	225	42		16:9		0	0	32	32	0	0	152	152
44	575/50p	575/50p (x2 PAL)	0	1616	211	53		16:9		0	0	32	32	0	0	152	152
45	1080/50i	1080/50i	0	1852	293	27				0	0	152	152				
47	720/60p	720/60p	0	1736	142	36				0	0	152	152				
48	720/50p	720/50p	0	2084	142	36				0	0	152	152				
49	1080/24PsF	1080/24PsF	0	1929	293	27				0	0	152	152				

Device Adjust *Initial value when settable

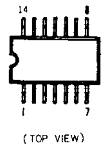
			Adjustable and unadjustable according to signal																													
	Item	OSDdisplay	NT358	VIDEO/SVIDEO							15k				x2 speed		HD		x2 speed		RGB	No. Input	Adjustment range		MEMORY CATEGORY	SET	OTHER					STATUS	Remark
			VIDEO	SVIDEO	PAL	SECAM	NT443	PAL-M	B&W60	B&W50	RGB60	Comp60	RGB50	Comp50	Comp50	Comp60	GBR	YPbPr	GBR	YPbPr			MIN	MAX			1	2	3	4	5		
BA-COMB	01	COMB/ NRMD:	○	—																		—	0	2	SET	0							Fixed value
	02	HHDS:																					0	2	SET	1							Fixed value
	03	YAPS:																					0	3	SET	0							Fixed value
	04	CLKS:																					0	3	SET	1							Fixed value
	05	NSDS:																					0	2	SET	0							Fixed value
	06	MSS:																					0	2	SET	0							Fixed value
	07	EXCSS:																					0	2	SET	1							Fixed value
	08	HDP:																					0	7	SET	4							Fixed value
	09	CDL:																					0	7	SET	5							Fixed value
	10	DYCOR:																					0	15	SET	2							Fixed value
	11	DYGAIN:																					0	15	SET	10							Fixed value
	12	DCCOR:																					0	15	SET	5							Fixed value
	13	DCGAIN:																					0	15	SET	5							Fixed value
	14	YNRK:																					0	1	SET	1							Fixed value
	15	YNRINV:																					0	1	SET	0							Fixed value
	16	YNRLIM:																					0	3	SET	2							Fixed value
	17	CNRK:																					0	1	SET	1							Fixed value
	18	CNRINV:																					0	1	SET	0							Fixed value
	19	CNRLIM:																					0	3	SET	2							Fixed value
	20	WSC:																					0	3	SET	1							Fixed value
	21	VTRH:																					0	3	SET	1							Fixed value
	22	VTRR:																					0	3	SET	1							Fixed value
	23	LDSR:																					0	3	SET	1							Fixed value
	24	VAPGAIN:																					0	7	SET	0							Fixed value
	25	VAPINV:																					0	31	SET	0							Fixed value
	26	YPFT:																					0	3	SET	2							Fixed value
	27	YPFG:																					0	15	SET	8							Fixed value
	28	VIPS:																					0	3	SET	2							Fixed value
	29	VEGS:																					0	3	SET	2							Fixed value
	30	CC3N:																					0	1	SET	0							Fixed value
	31	SELD:																					0	1	SET	1							Fixed value
	32	D2GA:																					0	7	SET	4							Fixed value
	33	HPLLFS:																					0	1	SET	1							Fixed value
	34	BPLLFS:																					0	1	SET	0							Fixed value
	35	FSCFG:																					0	1	SET	1							Fixed value
	36	PLLS:																					0	1	SET	1							Fixed value
	37	KILR:																					0	15	SET	3							Fixed value
	38	HSSL:																					0	15	SET	12							Fixed value
	39	VSSL:																					0	15	SET	8							Fixed value
	40	BGPS:																					0	15	SET	4							Fixed value
	41	BGPW:																					0	15	SET	10							Fixed value
BA-MTRX	01	MTRX/ PICTURE:	○																		—	—	0	63	SET	17							
	02	AGING 1:																					0	1	SET	0							Fixed value
	03	AGING 2:																					0	1	SET	0							Fixed value
	04	SUB HUE:	1	1	2	2	1	2	—	—	5	3	5	3	4	4	4	4	4	4	—		0	15	OTHER		7	7	7	7	7		
	05	SUB BRT:	○																				0	63	SET	52							
	06	R-Y/R:	1	1	2	2	1	2	—	—	5	3	5	3	4	4	4	4	4	4	—		0	15	OTHER		13	13	13	13	13		Fixed value
	07	R-Y/B:	1	1	2	2	1	2	—	—	5	3	5	3	4	4	4	4	4	4	—		0	15	OTHER		15	15	15	15	15		Fixed value
	08	G-Y/R:	1	1	2	2	1	2	—	—	5	3	5	3	4	4	4	4	4	4	—		0	15	OTHER		8	8	8	8	8		Fixed value
	09	G-Y/B:	1	1	2	2	1	2	—	—	5	3	5	3	4	4	4	4	4	4	—		0	15	OTHER		4	4	4	4	4		Fixed value
	10	YUVLEV:	○																				0	1	SET	*Note 1							Fixed value
	11	YUVCON:	1	1	2	2	1	2	1	2	5	3	5	3	4	4	4	4	4	4	—	—	0	15	OTHER		5	5	5	5	5		
	12	YUVCOL:	1	1	2	2	1	2	—	—	5	3	5	3	4	4	4	4	4	4	—		0	15	OTHER		6	6	6	6	6		
	13	SUBSHP:	1	1	2	2	1	2	1	2	5	3	5	3	4	4	4	4	4	4	—		0	3	OTHER		2	2	2	2	2		Fixed value
	14	SHPFO:	1	1	2	2	1	2	1	2	5	3	5	3	4	4	4	4	4	4	—		0	3	OTHER		2	2	2	2	2		Fixed value
	15	PREOVER:	1	1	2	2	1	2	1	2	5	3	5	3	4	4	4	4	4	4	—		0	3	OTHER		1	1	1	1	1		Fixed value
	16	LTILVL:	1	1	2	2	1	2	1	2	5	3	5	3	4	4	4	4	4	4	—		0	3	OTHER		0	0	0	0	0		Fixed value
	17	DMICPIC:	*Note 2								—	*Note 2	—	*Note 2	—								0	3	SET	3							Fixed value
	18	CECLVL:	1	1	2	2	1	2	—	—	5	3	5	3	4	4	4	4	4	4	—	—	0	3	OTHER		1	1	1	1	1		Fixed value
	19	ADJUST MODE:	○																				0	1	SET	0							Fixed value
BA-DSS/PLL	01	DSS/ A SYNC AUTO:	○																				0	1	SET	1							Fixed value
	02	A H SEL:																					0	1	SET	0							Fixed value
	03	A V SEL:																					0	2	SET	0							Fixed value
	04	A CLP SEL:																					0	3	SET	0							Fixed value
	05	A CLP DL HC:																					0	63	SET	12							Fixed value
	06	A CLP WD HC:																					0	63	SET	12							Fixed value
	07	A CLP DL SG:	1												2						3	—	0	63	OTHER		2	12	2				Fixed value
	08	A CLP WD SG:	○																				0	63	SET	12							Fixed value
	09	B BLK ST H1:	1	1	2	2	1	1	1	2	1	1	2	2	3	3	3	3	3	3	—	—	0	7	OTHER		2	2	0				Fixed value
	10	B BLK ST H0:	1	1	2	2	1	1	1	2	1	1	2	2	3	3	3	3	3	3	—		0	255	OTHER		107	113	2				Fixed value
	11	B BLK END H1:	1	1	2	2	1	1	1	2	1	1	2	2	3	3	3	3	3	3	—		0	7	OTHER		0	0	0				Fixed value
	12	B BLK END H0:	1	1	2	2	1	1	1	2	1	1	2	2	3	3	3	3	3	3	—		0	255	OTHER		82	95	56				Fixed value
	13	B BLK ST V1:	1	1	2	2	1	1	1	2	1	1	2	2	3	3	3	3	3	3	—		0	7	OTHER		2	2	7				Fixed value
	14	B BLK ST V0:	1	1	2	2	1	1	1	2	1	1	2	2	3	3	3	3	3	3	—		0	255	OTHER		7	106	255				Fixed value
	15	B BLK END V1:	1	1	2	2	1	1	1	2	1	1	2	2	3	3	3	3	3	3	—		0	7	OTHER		0	0	0				Fixed value
	16	B BLK END V0:	1	1	2	2	1	1	1	2	1	1	2	2	3	3	3	3	3	3	—		0	255	OTHER		28	39	0				Fixed value
	17	B SYNC AUTO:	○																				0	1	SET	1							Fixed value
	18	B H SEL:																					0	1	SET	0							Fixed value
	19	B V SEL:																					0	2	SET	0							Fixed value
	20	B CLP SEL:																					0	3	SET	0							Fixed value
	21	B CLP DL HC:	1												2						3	—	0	63	OTHER		55	2	2				Fixed value
	22	B CLP WD HC:	○																				0	63	SET	12							Fixed value
	23	B CLP DL SG:																					0	63	SET	12							Fixed value
	24	B CLP WD SG:																					0	63	SET	12							Fixed value
	25	PLL/ C PUMP:	—																			—	0	3	Status							All 1	Fixed value
BB-GAMMA		LEVEL:, POS: R:, G:, B:	—																			○	-128	127	SET	All 0							
BB-OTHER	01	OTHER/ H START:	○																				0	255	SET	172							Fixed value
	02	V START:																					0	255	SET	9							Fixed value
	03	SUBCONTRST:																					0	63	SET	32							Fixed value
	04	SUBBRIGHT:																					0	63	SET	32							Fixed value
	05	OSD LEVEL:																					0	31	SET	28							Fixed value
	06	BLKG LVL:																					0	63	SET	0							Fixed value
C-P DRV	01	PDRV V COM/ R:	○																				0	255	SET	55							
	02	G:																					0	255	SET	65							
	03	B:																					0	255	SET	63							
	04	SCEN:																					0	255	SET	148							
	05	PDRV SH/ PS CNT1:																					0	255	SET	64							Fixed value
	06	PS CNT2:																					0	255	SET	106							Fixed value
	07	DT INV:																					0	1	SET	1							Fixed value
	08	R DLCON:																					0	255	SET	220							Fixed value
	09	G DLCON:																					0	255	SET	237							Fixed value
	10	B DLCON:																					0	255	SET	228							Fixed value
	11	SID LVL:																					0	255	SET	126							
	12	PRG LVL:																					0	255	SET	91							
	13	SIDOFST:																					0	255	SET	191							

*Note 2 : 0 when D.Pic is ON

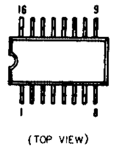
*Note 1 : U,J Model = 1
E,M Model = 0

Section 6
Semiconductors

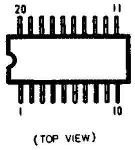
74LCX08MTCX
74LCX32MTCX
74LCX74MTCX
MAX489ECSD-TE2
NJM2901M-TE2
NJM2904M
PC74HC08D-T
PC74HC14D-T
PC74HC32D-T
SN74HCU04ANS-E20
TC74VHC02AF
TC74VHC02F
TC74VHC08F
TC74VHC32F
TC74VHCT04AF
TC74VHCT04F
TLC2932IPW-E20
TLC2933IPW-E20


14
8
1
7
(TOP VIEW)

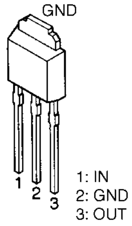
74LCX157MTCX


16
9
1
8
(TOP VIEW)

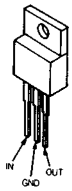
74LVT244MTC
74LCX541MTCX
74LCX574MTCX
IMISM530AYB-D
M62399FP-TE2
M74F244MEL
MC100EL91DWR2
MC10H351MEL
MC74F244MEL
TC74VHC240F
TC74VHC244F
TC74VHC245F
TC74VHC541F
TC74VHCT244AF
TC74VHCT541AF
TC74VHCT541AFT
TDA7315D013TR


20
11
1
10
(TOP VIEW)

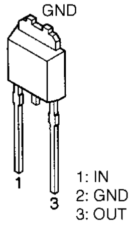
BA05FP-E2
BA09FP-E2
BA12FP-E2


GND
1
2
3
1: IN
2: GND
3: OUT

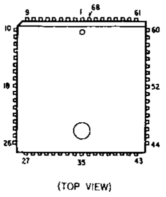
BA12T



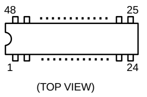
BS05FP
TA78109F


GND
1
3
1: IN
2: GND
3: OUT

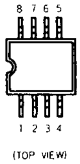
CXA1166K


9
1
68
61
10
60
18
52
26
44
27
35
43
(TOP VIEW)

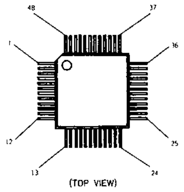
CY7C136-55JC


48
25
1
24
(TOP VIEW)

CXA1211M-T4
CXA1450M-T4
GS4981CTA
LM358P
LT13761S8
MAX3085CSA-TG068
MAX4121CSA-TE2
MAX4117ESA
MM1112XFBE
NJM2235M-T1
NJM2240M
NJM2533M
NJM4558E
OPA2658U/2K5
OPA658U-T2
SN75157
TC7W00FU
TC7W04F
TC7W04FU
TC7W08FU
TC7W32F
TC7W74F
TC7WU04FU
TL082CPS-E20
TL431BCDR2
UPC358G2-T2


8 7 6 5
1 2 3 4
(TOP VIEW)

CXA1839Q-T6
CXA1855Q
CXA3106AQ
CXA3197R
CXA3266Q
H1S5728IN
ISPLSI2032-80LT48-M01V1


48
37
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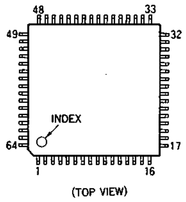
36
12
25
13
24
(TOP VIEW)

CXA2011Q
CXA2112R-T6


48
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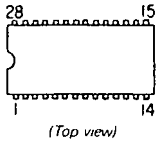
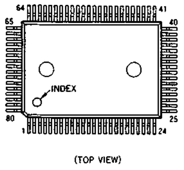
INDEX
64
17
1
16
(TOP VIEW)

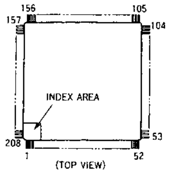
CXA2119M
M48Z35Y-70PCI
MN47V77ST1


28
15
1
14
(Top view)

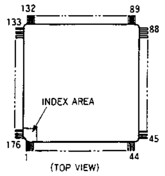
CXA2101AQ
CXD2024AQ
CXP846P48Q-1


64
41
65
40
INDEX
80
25
1
24
(TOP VIEW)

CXD2062Q
CXD2070Q
CXD2082
CXD2083
CXD2084
CXD8760FQ
GMZ1AH2B
GMZ3CH2
UPD65806GD-064-ML


156
105
157
104
INDEX AREA
208
53
1
52
(TOP VIEW)

CXD2071R


132
89
133
88
INDEX AREA
176
45
1
44
(TOP VIEW)

CXD8675R
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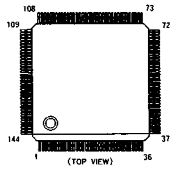
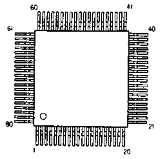
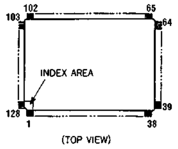
IP90C63


108
73
109
72
144
37
1
(TOP VIEW)
36

CXD8774R


60
41
61
40
80
21
1
20

CXG8007TQ


102
65
103
64
INDEX AREA
128
39
1
38
(TOP VIEW)

CY7C1021-20ZC
IDT71016S15Y-TL
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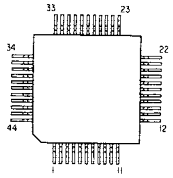
ISPLSI1016E-80LT44-BB02V1
ISPLSI1016E-80LT44-C01V1
ISPLSI1016E-80LT44 M01V1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44
12
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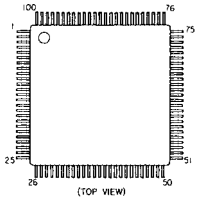
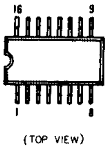
11

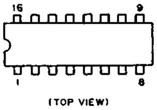
ISPGDX80A-7T100 BB04V1
ISPLSI1032E-100LT-C01V1


100
76
1
75
25
51
26
50
(TOP VIEW)

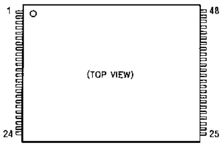
EL4093CS-TE2
MAX4066CEE-TE2
MC10H101MEL
MC10H116MEL
MC10H124MEL
MC10H125MEL
MC10H350P
MC74HC4052F-T2
MC74HC4053F-T2
MC74HC4538AF-T2
PC74HC123D-T
TC74LCX138FT
TC74VHC123AF
TC74VHC153F
TDA4665T-T


16
9
1
8
(TOP VIEW)

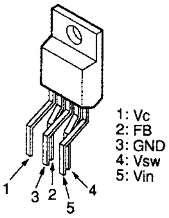
FA5331P


16
9
1
8
(TOP VIEW)

L7809CV


1
48
(TOP VIEW)
24
25

LT1269CT


1: Vc
2: FB
3: GND
4: Vsw
5: Vin
1
3
2
5
4

M27C4002-10F1
MBM29LV002T-SX1647
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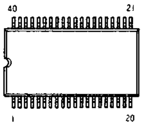
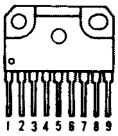
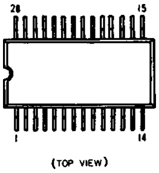


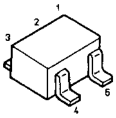
M54544AL



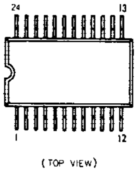
MAX211ECAI-TE2


28
15
1
14
(TOP VIEW)

TC7S04FU
TC7S08FU
TC7S14F
TC7S86FU
TC7SET08FU
TC7SH08F-TE85R
TC7SH32F-TE85R



MB81G163222-80
MB88141APFV-ER
UPC659AGS-E2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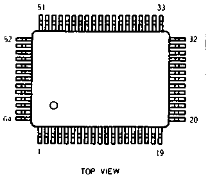
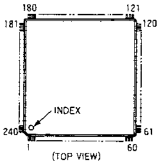
13
1
12
(TOP VIEW)

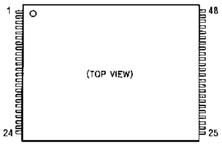
MB90091APF-116


51
33
52
32
64
20
1
19
TOP VIEW

MBCG46104-120PFV


180
121
181
120
INDEX
240
61
1
60
(TOP VIEW)

MBM29F200BA-70PFTN
MBM29F400BA-70PFTN


1
48
(TOP VIEW)
24
25

MM1170BFB
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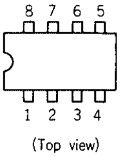
8 7 6 5
1 2 3 4
(Top view)

NM5283206FP
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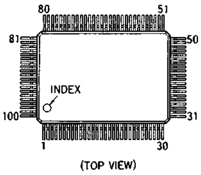
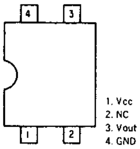
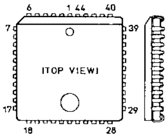

80
51
81
50
INDEX
100
31
1
30
(TOP VIEW)

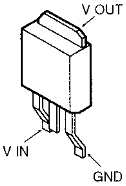
PC123FY2


4
3
1
2
1. Vcc
2. NC
3. Vout
4. GND

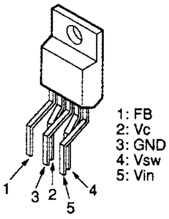
PC16552DV


6
1 44
40
7
39
(TOP VIEW)
17
29
18
28

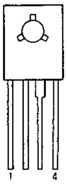
PQ05SZ1U


V OUT
V IN
GND

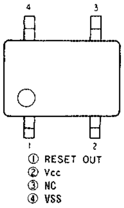
PQ20VZ1U
PQ20VZ5U


1: FB
2: Vc
3: GND
4: Vsw
5: Vin
1
3
2
5
4

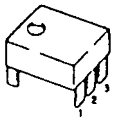
PQ30RV11



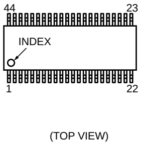
S-80828ANNP-EDR-T2


4
3
1
2
① RESET OUT
② Vcc
③ NC
④ VSS

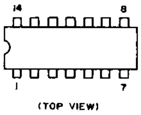
SBX1780-51



TC551664BJ-15 (EL)

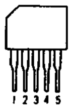

44
23
INDEX
1
22
(TOP VIEW)

TC74HC04AF
TC74HC08AF
TC74HC32AF

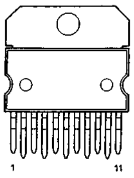

14
8
1
7
(TOP VIEW)

http://getMANUAL.com

TC7SH04F



TDA2009A



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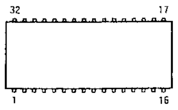

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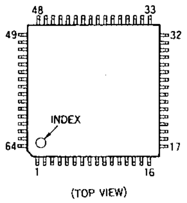
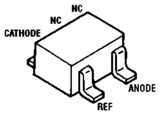
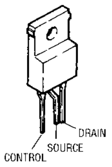

48
33
49
32
INDEX
64
17
1
16
(TOP VIEW)

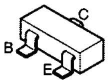
TLV431ACDBV2


NC
NC
CATHODE
ANODE
REF

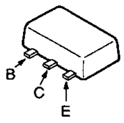
TOP224Y-BB
TOP226Y-BB
TOP227Y-BB


DRAIN
SOURCE
CONTROL

2SA1162-YG-TE85L
2SA1462
2SB1440S-TX
2SC2712-YG-TE85L
2SC2859-Y-TE-85L
2SC3326N
2SC3545
2SC3624A
DTA144EKA-T146
DTC114EKA-T146
DTC144EKA-T146



2SA1182-Y
2SB798



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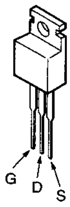
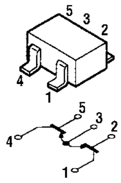


FMS1-T-148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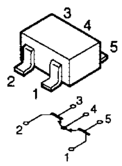
FMW1-T-148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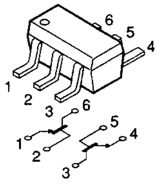
HN1B01FU-TE85R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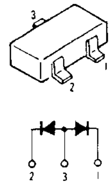
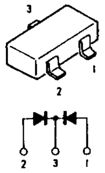
3

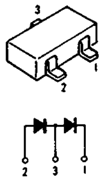
1S2836-T1



1S2837-T1
DAN202K-T-146



1SS123-T1
MA157-TX



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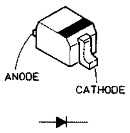
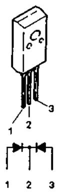
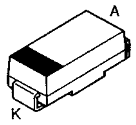
RD13SB2-T1
RD9.1SB2-T1
UDZ-TE-17-3.9B


ANODE
CATHODE

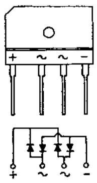
D10SC9M



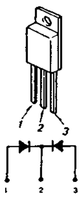
D1FS4A-TA



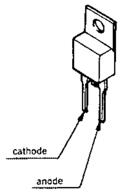
D6SB80



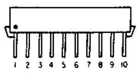
F16P20FS
FCH20A10
FCQ20A04



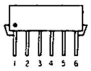
FSF10A60


cathode
anode

MU03-2205


1 2 3 4 5 6 7 8 9 10

MU04-2105



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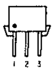

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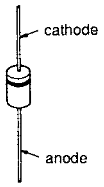
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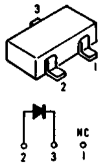
anode

RD10M-T1B2
RD12M-T1B2



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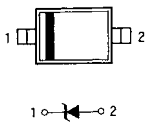

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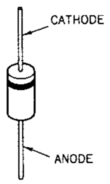
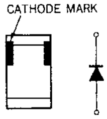
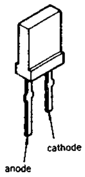
RGP10JPKG23


CATHODE
ANODE

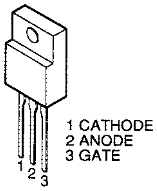
SEC1401C
SEC1901C


CATHODE MARK

SLP-155B-81
SLP-255B-81


cathode
anode

TF861S


1 CATHODE
2 ANODE
3 GATE
1
2
3

Section 7
Exploded Views

NOTE :

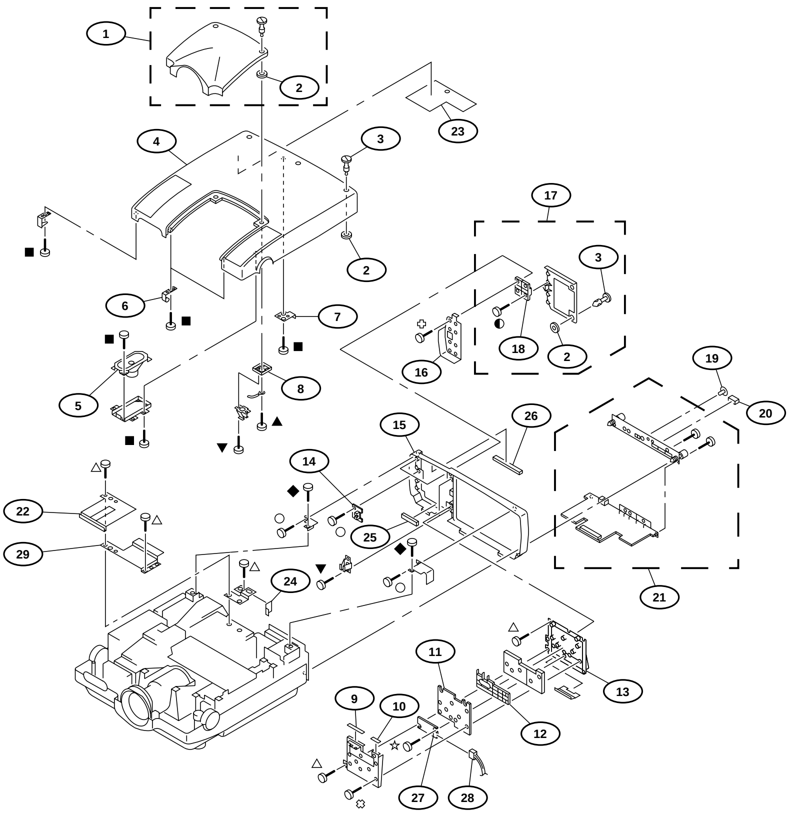
The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.

7-1. Hood, Rear Panel Block

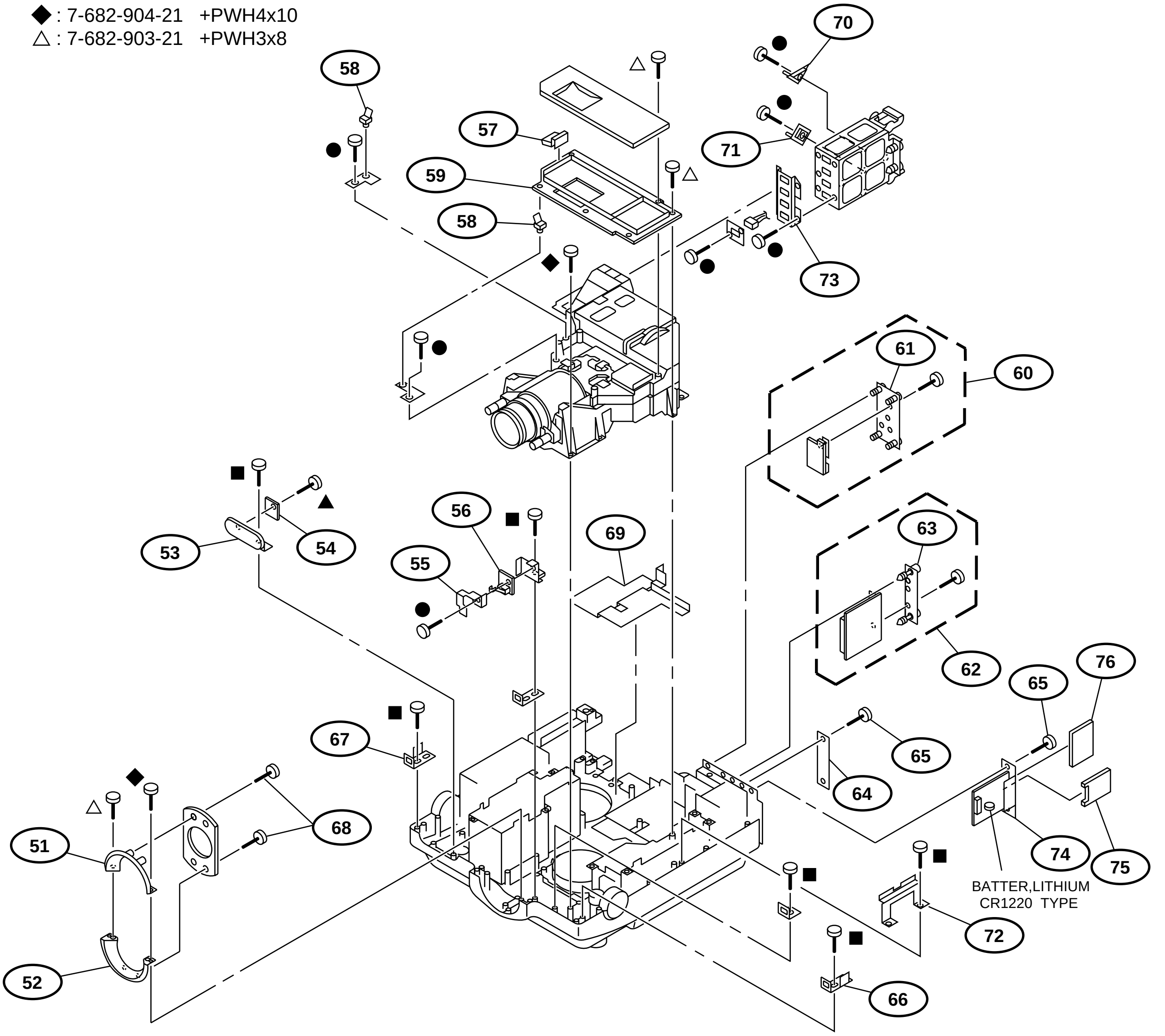
● : 7-682-148-01 +P3x8
▲ : 7-685-647-79 +BVTP3x10
▼ : 7-627-553-17 +P2x2
■ : 7-685-660-11 +BVTP4x10
◆ : 7-682-904-21 +PWH4x10
◐ : 7-685-648-79 +BVTP3x12
○ : 7-682-546-04 +P3x5
△ : 7-682-903-21 +PWH3x8
✙ : 7-682-903-41 +PWH3x12
✤ : 7-685-651-79 +BVTP3x20
☆ : 7-685-133-01 +P2.6x6



REF NO.		PART NO.	DESCRIPTION	REMARK
1	*	A-1484-218-A	COVER BLOCK ASSY, LEN	2
2	*	4-056-505-01	RING, RUBBER	
3	*	4-068-049-01	FASTENER	
4	*	X-4038-522-1	HOOD ASSY	
5		1-504-673-11	SPEAKER(12.6X5.7CM)	
6	*	4-068-058-01	HOLDER (B), HOOD	
7	*	4-068-050-01	BRACKET (A), CABINET	
8	*	4-068-087-01	PLATE(C), FASNER	
9	*	4-068-064-01	GASKET (L)	
10	*	4-068-065-01	GASKET (S)	
11	*	A-1375-192-A	H COMPL	
12	*	4-068-138-01	SPACER, CONTROL	
13	*	X-4036-254-2	PANEL ASSY, CONTROL	
14	*	1-675-362-11	PWB, UA	
15	*	4-068-154-11	PANEL, REAR	
16	*	4-068-103-03	GUARD (C), LIGHTING	
17	*	X-4036-945-1	LID ASSY, LAMP	2, 3, 18
18		4-055-964-01	HINGE, BLIND	
19		3-728-267-01	COVER, 3.5 JACK	
20	*	3-673-948-11	CAP, DUST	
21	*	A-1306-597-A	M COMPL	22
22	*	4-071-527-01	SPRING(TP)	
23		4-068-331-02	SHEET (A), HEAT	
24	*	4-068-403-01	GUARD (I), LIGHTING	
25	*	4-068-822-01	SHEET, FILTER	
26	*	4-068-464-01	GUARD (K), LIGHTING	
27		1-801-624-11	LCD	
28	*	1-506-622-11	CONNECTOR, PS 14P	
29	*	4-080-806-01	SPRING(TP2)	

7-2. Chassis Block 1

● : 7-682-148-01 +P3x8
▲ : 7-685-647-79 +BVTP3x10
■ : 7-685-660-11 +BVTP4x10
◆ : 7-682-904-21 +PWH4x10
△ : 7-682-903-21 +PWH3x8

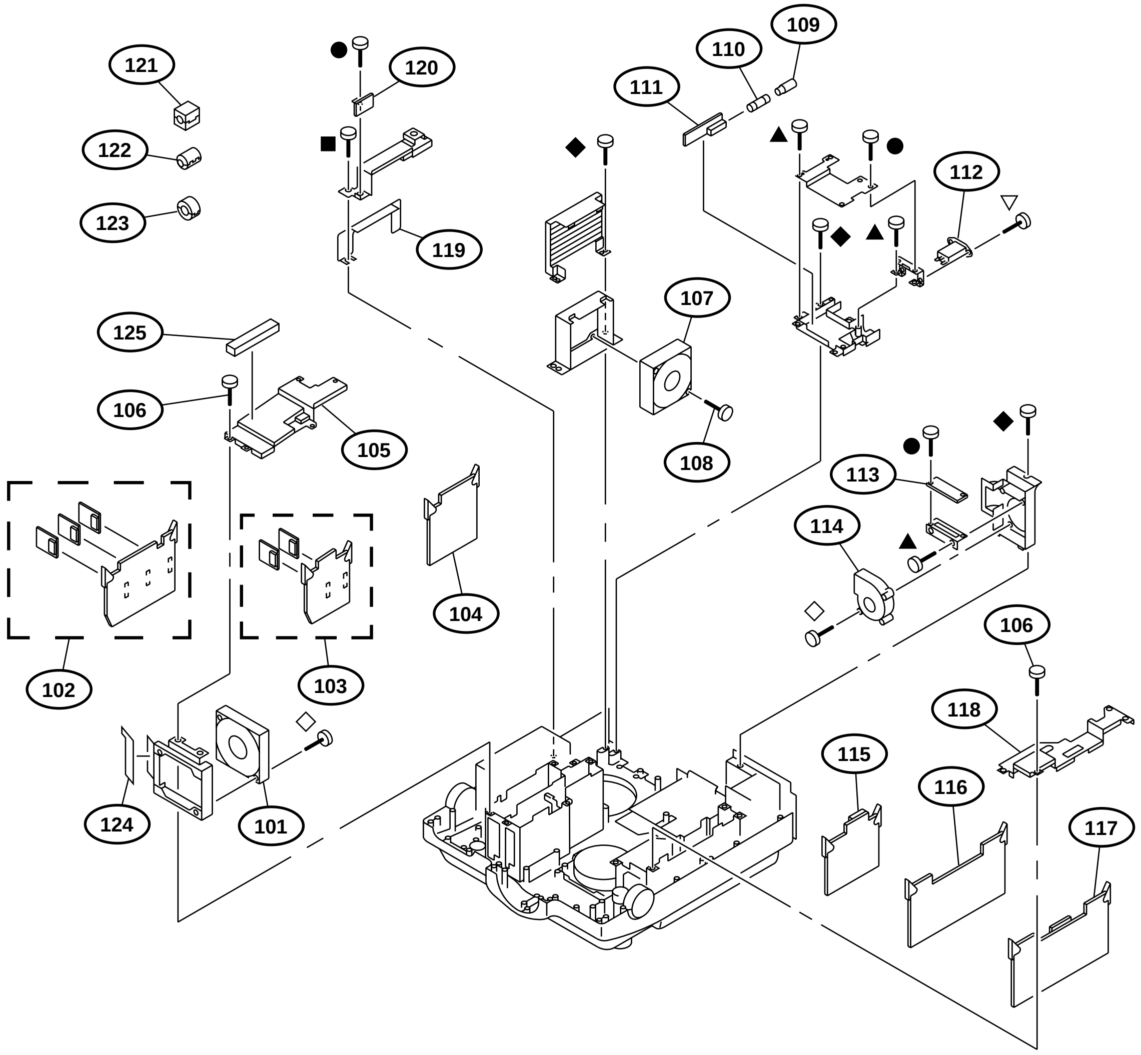


REF NO.		PART NO.	DESCRIPTION	REMARK
51		4-068-167-01	RING (A), LENS	
52		4-068-168-01	RING (B), LENS	
53	*	X-4036-251-1	WINDOW (F) ASSY, AF	
54	*	A-1390-961-A	N MOUNT	
55	*	4-068-067-02	SPRING, UC	
56	*	1-675-364-11	PWB, UC	
57	*	4-068-799-01	SPRING (CG)	
58	*	3-696-440-11	HOLDER (B), PC BOARD	
59	*	A-1335-135-A	C COMPL	
60	*	A-1275-161-A	QB COMPL	61
61	*	X-4036-248-1	PANEL (QB) ASSY, REAR	
62	*	A-1275-177-A	QA COMPL	63
63	*	X-4036-247-1	PANEL (QA) ASSY, REAR	
64		4-035-771-01	PLATE, BLIND	

REF NO.		PART NO.	DESCRIPTION	REMARK
65		4-396-203-01	SCREW (+B M3X12), PREVENTION	
66	*	4-069-085-01	BRACKET (C), FRONT	
67	*	4-069-086-01	BRACKET (D), FRONT	
68		4-068-063-02	SCREW, WASHER	
69	*	4-068-536-04	GUARD (M), LIGHTING	
70		4-068-109-01	BUSHING (B), LAMP	
71		4-068-108-01	BUSHING (A), LAMP	
72	*	4-069-638-01	SPRING (CB)	
73	*	4-080-462-01	PLATE, SOCKET	
74		A-1275-198-A	QC COMPL	
75	*	4-080-552-01	CARD, DUMMY	
76		A-1501-816-A	CF CARD ASSY	

7-3. Chassis Block 2

● : 7-682-148-01 +P3x8
▲ : 7-685-647-79 +BVTP3x10
■ : 7-685-660-11 +BVTP4x10
◆ : 7-682-904-21 +PWH4x10
▽ : 7-682-247-09 +K3x6
◇ : 7-685-167-19 WASHER HEAD SCREW +P4x35

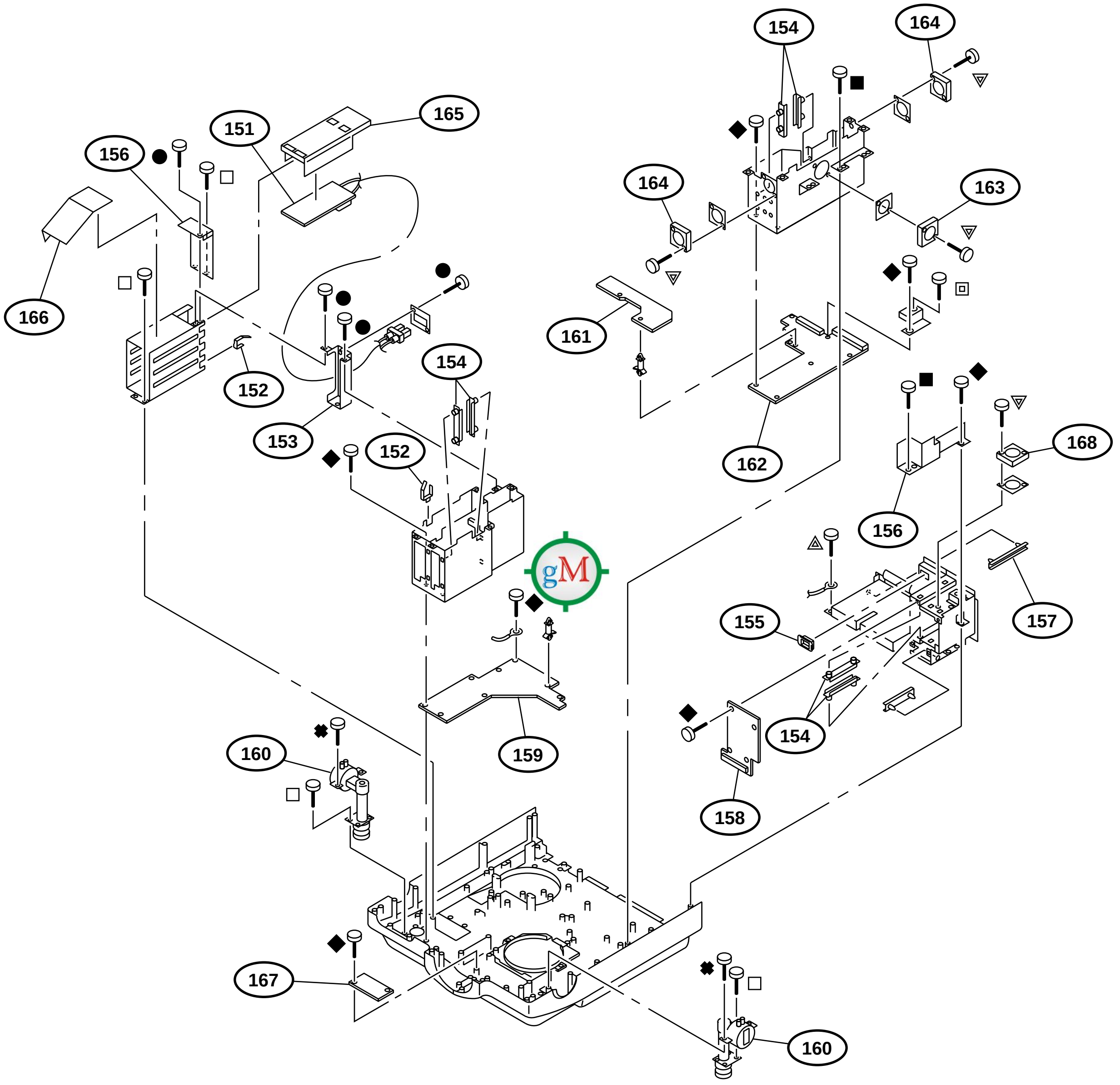


REF NO.		PART NO.	DESCRIPTION	REMARK
101		1-763-536-21	FAN, DC	
102	*	A-1316-556-A	GAA COMPL	
103	*	A-1316-555-A	GAB COMPL	
104	*	A-1316-403-A	GB COMPL	
105	*	X-4036-250-5	COVER ASSY, G	
106		4-067-823-01	SCREW (+PWH M4X12)	
107		1-763-260-21	FAN, DC	
108		4-068-057-01	SCREW (4X45), PWH TAPPING	
109	*	1-533-703-11	HOLDER, FUSE (FE110U)	
	*	1-533-702-11	HOLDER, FUSE (FE110M)	
110	⚠	1-533-694-11	FUSE (1.5A/250V) (FE110U)	
	⚠	1-576-233-11	FUSE (H.B.C)(6.3A/250V) (FE110M)	
111	*	1-680-249-11	PWP, GF	
112	⚠	1-785-591-11	INLET, AC	
113	*	A-1390-906-A	XC MOUNT	
114		1-763-238-11	FAN, DC	
115	*	A-1136-152-A	BC COMPL	
116	*	A-1136-032-A	BA COMPL	
117	*	A-1136-151-A	BB COMPL	
118	*	X-4036-249-2	COVER ASSY, B	
119	*	4-068-102-01	GUARD (B), LIGHTING	
120	*	1-675-366-11	PWB, V	
121		1-500-037-11	CORE, FERRITE (WITH CASE)	
122		1-500-051-11	BEAD, FERRITE (WITH CASE)	
123		1-543-947-11	CORE, FERRITE	
124	*	4-080-460-01	SHEET (B), DUCTV	
125	*	4-080-455-01	SHEET (C), DUCT	

7-4. Chassis Block 3

● : 7-682-148-01 +P3x8
■ : 7-685-660-11 +BVTP4x10
◆ : 7-682-904-21 +PWH4x10
✖ : 7-685-663-71 +BVTP4x16

□ : 7-682-662-09 +PS4x10
▽ : 7-682-653-09 +PS3x20
◎ : 7-685-645-79 +BVTP3x6
△ : 7-682-962-01 +PSW4x10
▣ : 7-685-158-19 +P4x6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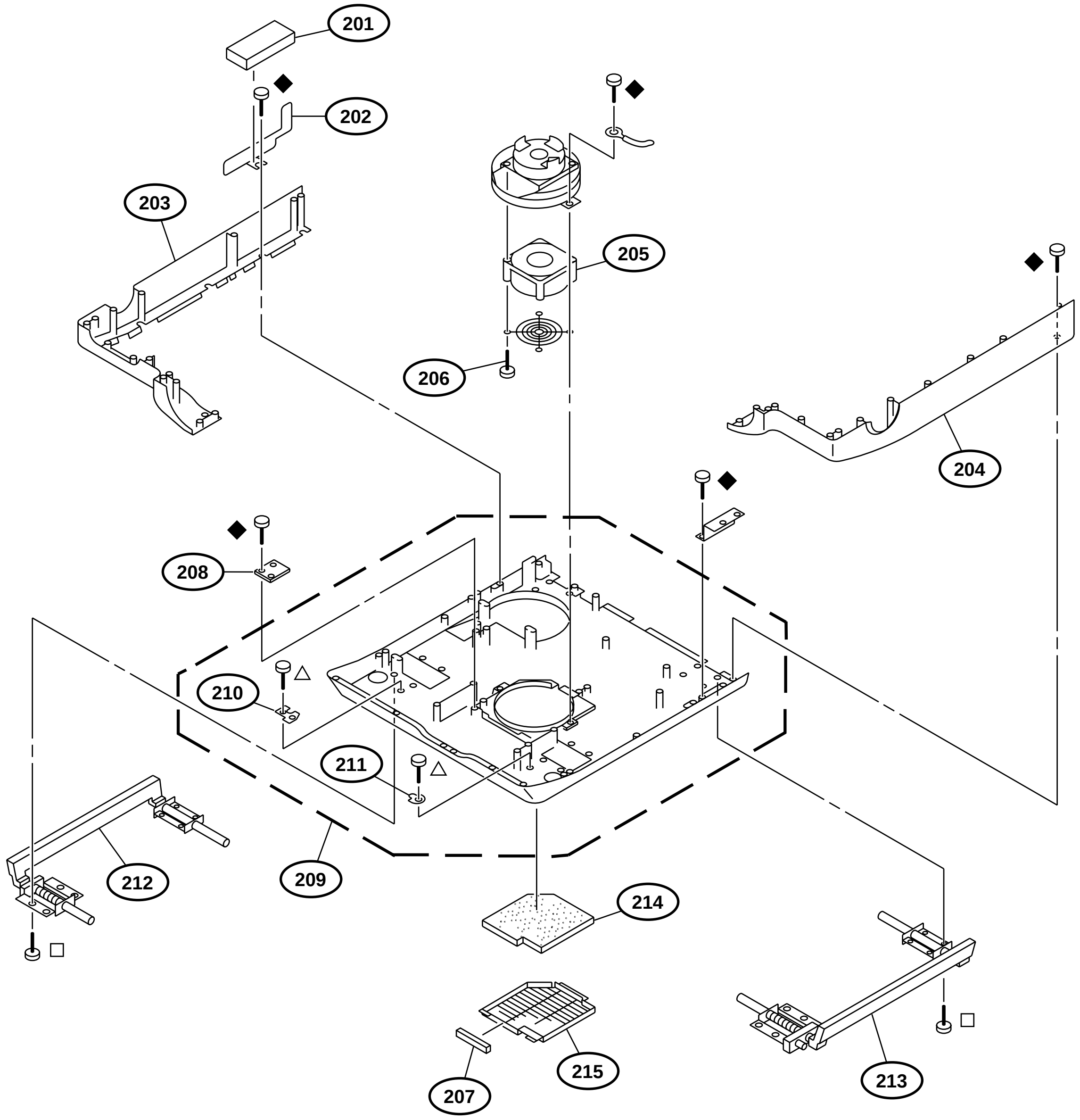
REF NO.		PART NO.	DESCRIPTION	REMARK
151	⚠	1-468-457-21	POWER BLOCK	
152	*	4-316-015-00	HOLDER, WIRE	
153	*	4-080-464-01	PLATE, PLUG	
154	*	4-360-309-11	SUPPORT, PC BOARD	
155	*	4-056-414-01	BUSHING, SQUARE	
156	*	4-080-466-01	COVER, GLP	
157		4-055-970-01	RAIL (S), PC BOARD GUIDE	
158	*	A-1391-093-A	XA MOUNT	
159	*	A-1311-898-A	GM MOUNT	
160		4-068-172-01	ADJUSTOR	

REF NO.		PART NO.	DESCRIPTION	REMARK
161	*	A-1391-092-A	XB MOUNT	
162	*	A-1131-663-A	BM MOUNT	
163		1-763-259-11	FAN, DC	
164		1-763-256-11	FAN, DC	
165		4-080-472-01	HOLDER, GLD	
166	*	4-080-465-01	SHEET (A), DUCT	
167		1-468-575-11	POWER BLOCK	
168		1-763-256-21	FAN, DC	166

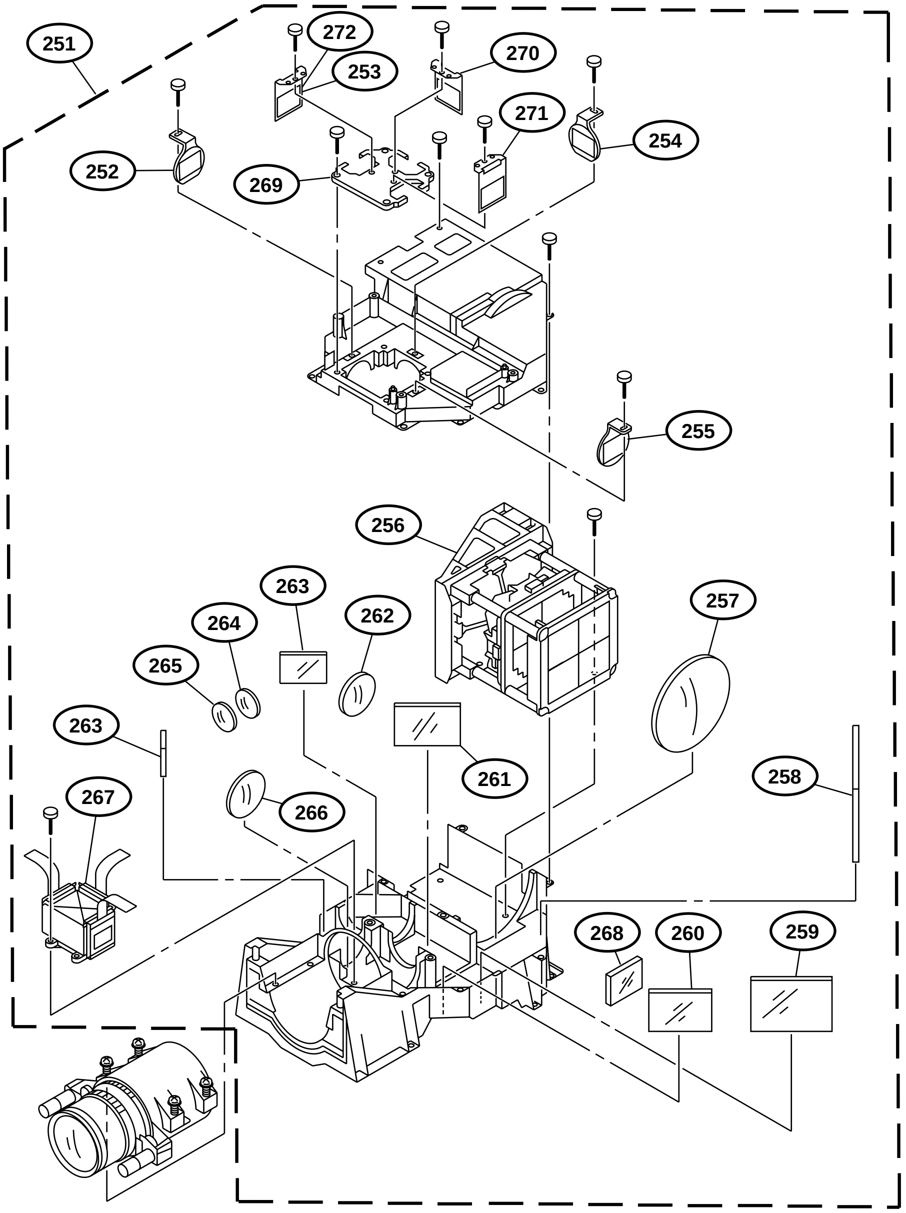
7-5. Base Block

■ : 7-685-660-11 +BVTP4x10
◆ : 7-682-904-21 +PWH4x10
△ : 7-682-903-21 +PWH3x8
☐ : 7-682-662-09 +PS4x10



REF NO.		PART NO.	DESCRIPTION	REMARK
201		4-068-062-01	SHEET (B), CUSHION	
202	*	4-068-101-02	GUARD (A), LIGHTING	
203	*	4-068-148-03	PANEL (L), SIDE	
204	*	4-068-147-04	PANEL (R), SIDE	
205		1-763-622-11	FAN, DC	
206		4-068-057-01	SCREW (4X45), PWH TAPPING	
207	*	4-068-822-01	SHEET, FILTER	
208	*	1-675-363-11	PWB, UB	
209	*	X-4036-258-2	BASE ASSY	210, 211
210	*	4-068-329-01	COVER (A), HOLE	
211	*	4-068-330-01	COVER (B), HOLE	
212	*	4-068-150-02	HANDLE (R)	
213	*	4-068-149-02	HANDLE (L)	
214		4-071-408-01	FILTER (LCD), FAN	
215		4-068-144-02	COVER, FILTER	

7-6. Optical Block



REF NO.	PART NO.	DESCRIPTION	REMARK
251	A-1501-851-A	OPTICAL UNIT SERVICE ASSY	252-272
252	9-885-011-60	POLARIZER, R	
253	9-885-011-61	POLARIZER, R-STANDARD-OUT	
254	9-885-011-57	POLARIZER, G/CONDENSER LENS	
255	9-885-011-58	POLARIZER, B/CONDENSER LENS	
256	* 9-884-260-01	FLYEYE/PS CONVERTER BLOCK	
257	* 9-881-922-01	MAIN CONDENSER LENS	
258	* 9-881-931-01	MIRROR A	
259	* 9-881-934-01	GR REFLECTION DICHROIC MIRROR	
260	* 9-881-932-01	MIRROR B	
261	9-881-935-01	G REFLECTION DICHROIC MIRROR	
262	* 9-881-926-01	LENS A, RELAY	
263	* 9-881-933-01	MIRROR C	
264	* 9-885-011-59	LENS B, RELAY	
265	* 9-881-928-01	LENS C, RELAY	
266	* 9-881-929-01	RED CONDENSER LENS	
267	A-1501-613-A	PRISM BLOCK ASSY	
268	* 9-884-266-01	UV PROOF GLASS-	
269	* 9-885-011-64	PRISM BLOCK LID	
270	9-885-011-62	POLARIZER, G-OUT	
271	9-885-011-63	POLARIZER, B-OUT	
272	9-882-840-01	POLARIZER, R-TELEZOOM-OUT	

Section 8

Electrical Parts List

NOTE :

The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

RESISTORS

- All resistors are in ohms.
- F: nonflammable
- METAL: Metal-film resistor
- METAL OXIDE: Metal oxide-film resistor

Ref.No.	Part No.	Description	Remark
	* A-1131-663-A	BM MOUNT *****************	
	<CAPACITOR>		
C302	1-126-941-11	ELECT 470UF 20% 25V	
C304	1-126-941-11	ELECT 470UF 20% 25V	
C306	1-126-941-11	ELECT 470UF 20% 25V	
C307	1-126-941-11	ELECT 470UF 20% 25V	
	<CONNECTOR>		
CN304	* 1-778-391-11	SOCKET, PC CONNECTOR 96P	
CN305	* 1-778-393-11	PIN, PC CONNECTOR 96P	
CN307	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN308	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN310	1-564-505-11	PLUG, CONNECTOR 2P	
CN311	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN312	1-564-509-11	PLUG, CONNECTOR 6P	
CN313	* 1-564-511-11	PLUG, CONNECTOR 8P	
CN314	* 1-564-595-11	PLUG, CONNECTOR 14P	
CN315	1-564-509-11	PLUG, CONNECTOR 6P	
CN316	* 1-564-511-11	PLUG, CONNECTOR 8P	
CN317	* 1-764-333-11	PLUG, CONNECTOR 10P	
CN318	* 1-564-511-11	PLUG, CONNECTOR 8P	
<JACK>			
J301	1-568-547-11	JACK, MINIATUER PIN	
J302	1-568-547-11	JACK, MINIATUER PIN	
J303	1-568-547-11	JACK, MINIATUER PIN	
<COIL>			
L301	1-412-533-21	INDUCTOR 47UH	
L302	1-412-533-21	INDUCTOR 47UH	
L303	1-412-533-21	INDUCTOR 47UH	

****

Ref.No.	Part No.	Description	Remark
	* A-1136-032-A	BA COMPL *****************	
	3-179-084-01	LEVER (R), PC BOARD	
	3-179-085-01	LEVER (L), PC BOARD	
	* 4-904-679-01	HEAT SINK (IC)	
	<CAPACITOR>		
C1001	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1002	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1003	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1004	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1005	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1006	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1007	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1008	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1009	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1010	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1011	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1012	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1013	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1014	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1015	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1016	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1017	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1018	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1019	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1020	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1021	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1022	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1023	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1024	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1025	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1026	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1027	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1028	1-128-007-11	ELECT CHIP 2.2UF 20% 35V	
C1029	1-128-007-11	ELECT CHIP 2.2UF 20% 35V	
C1030	1-128-007-11	ELECT CHIP 2.2UF 20% 35V	
C1031	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1032	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1033	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1034	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C1035	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C1036	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	

Ref.No.	Part No.	Description	Remark
C1037	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1038	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1039	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1040	1-128-007-11	ELECT CHIP 2.2UF 20% 35V	
C1041	1-128-007-11	ELECT CHIP 2.2UF 20% 35V	
C1042	1-128-007-11	ELECT CHIP 2.2UF 20% 35V	
C1043	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1044	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1045	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1046	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C1047	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C1048	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C1049	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C1050	1-117-681-11	ELECT CHIP 100UF 20% 16V	
C1051	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1052	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1053	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1054	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1055	1-117-681-11	ELECT CHIP 100UF 20% 16V	
C1057	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1058	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1059	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1060	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1061	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1064	1-117-681-11	ELECT CHIP 100UF 20% 16V	
C1065	1-126-935-11	ELECT 470UF 20% 6.3V	
C1066	1-126-935-11	ELECT 470UF 20% 6.3V	
C1067	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1068	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1069	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C1070	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1072	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
C1073	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
C1074	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
C1075	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1076	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1080	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
C1081	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
C1082	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
C1086	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1087	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1088	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1089	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1090	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1091	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1092	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1093	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1094	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1095	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1096	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C1097	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1098	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1099	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1100	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1101	1-126-395-11	ELECT CHIP 22UF 20% 16V	
C1102	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1106	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1109	1-126-395-11	ELECT CHIP 22UF 20% 16V	
C1110	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C1111	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C1112	1-128-013-11	ELECT CHIP 1UF 20% 50V	
C1113	1-128-013-11	ELECT CHIP 1UF 20% 50V	
C1114	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1115	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1116	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C1117	1-128-013-11	ELECT CHIP 1UF 20% 50V	
C1118	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C1119	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1120	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1121	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1122	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1123	1-126-935-11	ELECT 470UF 20% 6.3V	
C1124	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1125	1-163-089-00	CERAMIC CHIP 6PF 0.50PF 50V	
C1126	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C1128	1-128-006-11	ELECT CHIP 4.7UF 20% 25V	
C1129	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1130	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1131	1-104-665-11	ELECT 100UF 20% 10V	
C1132	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1133	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1134	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1135	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1136	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1137	1-117-681-11	ELECT CHIP 100UF 20% 16V	
C1138	1-163-227-11	CERAMIC CHIP 10PF 0.50PF 50V	
C1139	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1140	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1141	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1142	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1143	1-117-681-11	ELECT CHIP 100UF 20% 16V	
C1144	1-128-396-11	ELECT CHIP 470UF 20% 10V	
C1145	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1146	1-126-935-11	ELECT 470UF 20% 6.3V	
C1147	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1148	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1149	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1150	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1151	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1152	1-163-227-11	CERAMIC CHIP 10PF 0.50PF 50V	
C1153	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1154	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1155	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1156	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1157	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1158	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1159	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C1160	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1161	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C1162	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C1163	1-128-013-11	ELECT CHIP 1UF 20% 50V	
C1164	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1165	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C1166	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1167	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1168	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1169	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C1170	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1171	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1172	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1173	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1174	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1175	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1176	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C1177	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C1178	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1179	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1180	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C1181	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C1182	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C1201	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1202	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	

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Ref.No.	Part No.	Description			Remark
C1203	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1204	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1205	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1206	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1207	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1208	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1209	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1210	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1211	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1212	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1213	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1214	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1215	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1216	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1217	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1218	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1219	1-117-681-11	ELECT CHIP	100UF	20%	16V
C1251	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1252	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1253	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C1254	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1255	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C1256	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C1257	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1258	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1259	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1260	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1261	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1262	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1263	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1265	1-128-013-11	ELECT CHIP	1UF	20%	50V
C1266	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1267	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1268	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1269	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1270	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1271	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1272	1-128-007-11	ELECT CHIP	2.2UF	20%	35V
C1273	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1274	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1275	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1276	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1278	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1279	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1280	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1281	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1282	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1283	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1284	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1287	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1289	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1290	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1291	1-128-396-11	ELECT CHIP	470UF	20%	10V
C1292	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1293	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1294	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1297	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1298	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1300	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1303	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1304	1-128-013-11	ELECT CHIP	1UF	20%	50V
C1305	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1308	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C1309	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1310	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1311	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V

Ref.No.	Part No.	Description			Remark
C1312	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1313	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1314	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1315	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1316	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1317	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1318	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C1319	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C1320	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1321	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1322	1-126-935-11	ELECT	470UF	20%	6.3V
C1323	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C1324	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C1325	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C1326	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C1327	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1328	1-126-935-11	ELECT	470UF	20%	6.3V
C1401	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1402	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1403	1-109-982-11	CERAMIC CHIP	1UF	10%	10V
C1404	1-109-982-11	CERAMIC CHIP	1UF	10%	10V
C1405	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1406	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1407	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1408	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1409	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1410	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1411	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C1412	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1413	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C1414	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1415	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C1416	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1417	1-163-017-00	CERAMIC CHIP	0.0047UF	10%	50V
C1418	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1419	1-128-006-11	ELECT CHIP	4.7UF	20%	25V
C1420	1-128-006-11	ELECT CHIP	4.7UF	20%	25V
C1421	1-128-006-11	ELECT CHIP	4.7UF	20%	25V
C1422	1-128-006-11	ELECT CHIP	4.7UF	20%	25V
C1423	1-163-809-11	CERAMIC CHIP	0.047UF	10%	25V
C1424	1-109-982-11	CERAMIC CHIP	1UF	10%	10V
C1425	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1426	1-128-396-11	ELECT CHIP	470UF	20%	10V
C1427	1-164-344-11	CERAMIC CHIP	0.068UF	10%	25V
C1428	1-164-344-11	CERAMIC CHIP	0.068UF	10%	25V
C1429	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1430	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1431	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1432	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1433	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1434	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1435	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1436	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1437	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1438	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1439	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1441	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1442	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1443	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1444	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1445	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1446	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1447	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1448	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1449	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1450	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V

Ref.No.	Part No.	Description		Remark	
C1451	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1452	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C1453	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C1454	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C1455	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1456	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1457	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1458	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1459	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1460	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1461	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1462	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1463	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1464	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1465	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1466	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1467	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1468	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1469	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C1470	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1471	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1472	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1473	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1474	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1475	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1476	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1477	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1478	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1479	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1480	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1484	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1485	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1486	1-163-089-00	CERAMIC CHIP	6PF	0.50PF	50V
C1487	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1488	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1489	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1490	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1491	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1494	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1495	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1496	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1497	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1498	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1499	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1500	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1501	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1502	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1503	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1751	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1752	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1753	1-128-013-11	ELECT CHIP	1UF	20%	50V
C1754	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1755	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1756	1-128-013-11	ELECT CHIP	1UF	20%	50V
C1757	1-128-013-11	ELECT CHIP	1UF	20%	50V
C1758	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1759	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1760	1-128-013-11	ELECT CHIP	1UF	20%	50V
C1761	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1762	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1763	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1764	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1765	1-128-013-11	ELECT CHIP	1UF	20%	50V
C1766	1-128-013-11	ELECT CHIP	1UF	20%	50V
C1767	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1768	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1769	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1770	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1771	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1772	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1773	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1774	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1775	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1776	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C1777	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C1778	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C1779	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1780	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1781	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1782	1-128-396-11	ELECT CHIP	470UF	20%	10V
C1783	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1784	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1785	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1786	1-126-204-11	ELECT CHIP	47UF	20%	16V
C1787	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1788	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1789	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1800	1-126-513-11	ELECT	47UF	20%	6.3V
C1901	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1902	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1903	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1904	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1905	1-117-681-11	ELECT CHIP	100UF	20%	16V
C1906	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1907	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1908	1-109-982-11	CERAMIC CHIP	1UF	10%	10V
C1909	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C1910	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1911	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1912	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1913	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1914	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1915	1-117-681-11	ELECT CHIP	100UF	20%	16V
C1916	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1917	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1918	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1919	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1920	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1922	1-163-143-00	CERAMIC CHIP	0.0012UF	5%	50V
C1923	1-110-501-11	CERAMIC CHIP	0.33UF	10%	16V
C1924	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1925	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1926	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1927	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1928	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1929	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1930	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1931	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1932	1-128-004-11	ELECT CHIP	10UF	20%	16V
C1933	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1934	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1935	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1936	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1937	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1938	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1939	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1940	1-126-205-11	ELECT CHIP	47UF	20%	6.3V
C1941	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1944	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C1945	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1946	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C1947	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V

Ref.No.	Part No.	Description	Remark
C1950	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C1951	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1952	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1953	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1954	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1955	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1956	1-163-231-11	CERAMIC CHIP 15PF 5% 50V	
C1957	1-163-231-11	CERAMIC CHIP 15PF 5% 50V	
C1958	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1959	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1960	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C1961	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1962	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1963	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1964	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1965	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C1968	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C1969	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C1970	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9001	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9002	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C9003	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9004	1-128-006-11	ELECT CHIP 4.7UF 20% 25V	
C9005	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C9006	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9007	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9008	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9009	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C9010	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9011	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9012	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9013	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9014	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9015	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9016	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9017	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9018	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9019	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9020	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9021	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9022	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9023	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9024	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9025	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9026	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9027	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9028	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9029	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9030	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9032	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9033	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9034	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9035	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9036	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9037	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9038	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9039	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9040	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9041	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9042	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9043	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9044	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9045	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9046	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9047	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9048	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9049	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9050	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9051	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9052	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9053	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9054	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9055	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9056	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C9057	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C9058	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9059	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9062	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9063	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9064	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9101	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9102	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9103	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9104	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9105	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9106	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9107	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9108	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9109	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9110	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9111	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9112	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9113	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9114	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9115	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9116	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9117	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9118	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9119	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9120	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9121	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9122	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9123	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9124	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9125	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9126	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9127	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9128	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9129	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9130	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9131	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9132	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9133	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9134	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9135	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9136	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9137	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9138	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9139	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9140	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9141	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9142	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9143	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9144	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9145	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9146	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9147	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9148	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9149	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9150	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9151	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9152	1-117-681-11	ELECT CHIP 100UF 20% 16V	

Ref.No.	Part No.	Description	Remark
C9153	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9154	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9155	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9156	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C9157	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9158	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9159	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9201	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9202	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9203	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9204	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9205	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9206	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9207	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9208	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9209	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9210	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9211	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9212	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9213	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9214	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9215	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9216	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9217	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9218	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9219	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9220	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9221	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9222	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9223	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9224	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9225	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9226	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9227	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9228	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9229	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C9230	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9231	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9232	1-126-205-11	ELECT CHIP 47UF 20% 6.3V	
C9233	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9234	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C9235	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9236	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9237	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9240	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C9244	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9248	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9252	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9501	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C9502	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9503	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C9504	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9505	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C9506	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9507	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9508	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9509	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9510	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9511	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9512	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9513	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9514	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9515	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9516	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9517	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C9518	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C9519	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9520	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9521	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C9522	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9523	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9524	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9525	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9526	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9527	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C9528	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9529	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9530	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C9531	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C9532	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9533	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C9534	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9535	1-109-982-11	CERAMIC CHIP 1UF 10% 10V	
C9536	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C9537	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C9538	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9539	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9540	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9541	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9542	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9543	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9544	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9545	1-128-013-11	ELECT CHIP 1UF 20% 50V	
C9546	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9547	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9548	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9549	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9550	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C9551	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9552	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C9553	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9554	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9555	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9556	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9557	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9558	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9559	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9560	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9561	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9562	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9563	1-107-823-11	CERAMIC CHIP 0.47UF 10% 16V	
C9564	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9565	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9566	1-164-161-11	CERAMIC CHIP 0.0022UF 10% 50V	
C9567	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C9568	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9569	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9570	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
	<DIODE>		
D1001	8-719-800-76	DIODE 1SS123-T1	
D1002	8-719-800-76	DIODE 1SS123-T1	
D1003	8-719-800-76	DIODE 1SS123-T1	
D1101	8-719-801-78	DIODE 1S2837-T1	
D1401	8-719-914-43	DIODE DAN202K-T-146	
D1901	8-719-914-43	DIODE DAN202K-T-146	
D9001	8-719-422-12	DIODE UDZ-TE-17-3.9B	
	<FERRITE BEAD>		
FB1251	1-414-753-91	INDUCTOR 4.7UH	

Ref.No.	Part No.	Description	Remark
FB1252	1-543-775-11	FERRITE 0UH	
FB1253	1-543-775-11	FERRITE 0UH	
FB1254	1-543-775-11	FERRITE 0UH	
FB1256	1-414-753-91	INDUCTOR 4.7UH	
FB1257	1-414-234-22	INDUCTOR 0UH	
FB1258	1-414-234-22	INDUCTOR 0UH	
FB1259	1-414-234-22	INDUCTOR 0UH	
FB1260	1-414-234-22	INDUCTOR 0UH	
FB1261	1-414-234-22	INDUCTOR 0UH	
FB1262	1-414-234-22	INDUCTOR 0UH	
FB9202	1-414-234-22	INDUCTOR 0UH	
FB9203	1-414-234-22	INDUCTOR 0UH	
	<FILTER>		
FL1101	1-239-289-11	FILTER, LOW PASS	
FL1102	1-239-289-11	FILTER, LOW PASS	
FL1103	1-239-289-11	FILTER, LOW PASS	
FL1251	1-239-289-11	FILTER, LOW PASS	
FL1252	1-239-289-11	FILTER, LOW PASS	
FL1254	1-239-847-11	FILTER, LOW PASS	
FL1401	1-233-505-21	FILTER, LOW PASS	
FL1402	1-233-504-21	FILTER, LOW PASS	
FL1403	1-233-504-21	FILTER, LOW PASS	
FL1405	1-235-096-00	FILTER, LINE	
FL9201	1-234-113-21	FILTER, LOW PASS	
FL9202	1-234-112-21	FILTER, LOW PASS	
FL9203	1-234-112-21	FILTER, LOW PASS	
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IC1001	8-752-061-02	IC CXA1450M-T4	
IC1002	8-752-061-02	IC CXA1450M-T4	
IC1003	8-752-061-02	IC CXA1450M-T4	
IC1004	8-759-470-51	IC MB88141APFV-ER	
IC1005	8-759-431-38	IC MAX4121CSA-TE2	
IC1006	8-759-431-38	IC MAX4121CSA-TE2	
IC1007	8-759-431-38	IC MAX4121CSA-TE2	
IC1008	8-759-470-51	IC MB88141APFV-ER	
IC1009	8-759-543-16	IC EL4093CS-TE2	
IC1010	8-759-543-16	IC EL4093CS-TE2	
IC1011	8-759-543-16	IC EL4093CS-TE2	
IC1012	8-759-533-85	IC BA05FP-E2	
IC1013	8-759-533-85	IC BA05FP-E2	
IC1014	8-759-460-81	IC BA12FP-E2	
IC1016	8-759-460-79	IC BA09FP-E2	
IC1017	8-759-388-31	IC PQ20VZ1U	
IC1101	8-752-068-45	IC CXA1855Q	
IC1102	8-759-710-29	IC NJM2235M-T1	
IC1103	8-759-711-62	IC NJM2240M(TE2)	
IC1104	8-752-372-78	IC CXD2024AQ	
IC1105	8-759-353-02	IC NJM2533M(TE2)	
IC1106	8-759-353-02	IC NJM2533M(TE2)	
IC1251	8-759-269-92	IC SN74HCU04ANSR	
IC1252	8-759-568-27	IC MSM514265C-60JSDR1	
IC1253	8-759-161-24	IC UPC659AGS-E2	
IC1254	8-759-536-12	IC UPD64081BGF-3BA	
IC1401	8-759-565-20	IC TDA4665T/V5-118	
IC1402	8-759-295-47	IC TDA9141-N2C	
IC1403	8-759-335-57	IC MM1112XFBE	
IC1404	8-759-335-57	IC MM1112XFBE	
IC1405	8-759-058-62	IC TC7S08FU(TE85R)	
IC1406	8-759-344-12	IC GS4981CTA	
IC1407	8-759-082-58	IC TC7W08FU(TE12R)	
IC1408	8-759-082-57	IC TC7W04FU(TE12R)	
IC1409	8-759-038-15	IC MC74HC4538AFEL	
IC1410	8-752-082-49	IC CXA2119M	
IC1751	8-752-053-19	IC CXA1166K	
IC1752	8-752-053-19	IC CXA1166K	
IC1753	8-752-053-19	IC CXA1166K	
IC1754	8-759-331-71	IC NJM4558E(TE2)	
IC1755	8-759-530-57	IC TLV431ACDBV2	
IC1901	8-759-195-81	IC TC7S86FU(TE85R)	
IC1902	8-759-700-78	IC TL082CPS-E20	
IC1903	8-759-092-82	IC SN75157PS-ELL2000	
IC1904	8-759-058-58	IC TC7S04FU(TE85R)	
IC1905	8-752-088-27	IC CXA3266Q-T6	
IC1906	8-759-012-02	IC MC10H124MEL	
IC1907	8-759-543-15	IC MC100EL91DWR2	
IC1909	8-759-285-61	IC PC74HC123D-T	
IC1910	8-759-563-11	IC CXD8773R	
IC1911	8-759-186-77	IC TC74VHC541F(EL)	
IC1912	8-759-082-58	IC TC7W08FU(TE12R)	
IC1914	8-759-058-62	IC TC7S08FU(TE85R)	
IC1915	8-759-196-97	IC TC7SH32FU-TE85R	
IC1916	8-759-058-62	IC TC7S08FU(TE85R)	
IC1917	8-759-058-62	IC TC7S08FU(TE85R)	
IC9001	8-759-669-75	IC TLC2932IPWR	
IC9002	8-759-669-78	IC TLC2933IPWR	
IC9003	8-759-467-20	IC CXD8675R	
IC9004	8-759-285-61	IC PC74HC123D-T	
IC9005	8-759-447-90	IC TLC5733AIPM	
IC9101	8-759-422-80	IC MN47V77ST1	
IC9102	8-759-422-80	IC MN47V77ST1	
IC9103	8-759-422-80	IC MN47V77ST1	
IC9104	8-752-395-15	IC CXD2082Q	
IC9105	8-752-395-33	IC CXD2083Q	
IC9106	8-749-015-18	IC PQ07VZ012P	
IC9201	8-752-395-29	IC CXD2084Q	
IC9202	8-759-485-79	IC TC7SET08FU(TE85R)	
IC9203	8-759-485-79	IC TC7SET08FU(TE85R)	
IC9204	8-759-431-14	IC PQ3TZ53U	
IC9501	8-752-086-33	IC CXA2101AQ-TL	
	<COIL>		
L1001	1-412-525-31	INDUCTOR 10UH	
L1002	1-412-525-31	INDUCTOR 10UH	
L1003	1-412-525-31	INDUCTOR 10UH	
L1004	1-412-525-31	INDUCTOR 10UH	
L1005	1-412-525-31	INDUCTOR 10UH	
L1006	1-412-058-11	INDUCTOR 10UH	
L1008	1-412-058-11	INDUCTOR 10UH	
L1009	1-412-058-11	INDUCTOR 10UH	
L1101	1-412-058-11	INDUCTOR 10UH	
L1102	1-412-064-11	INDUCTOR 100UH	
L1103	1-412-058-11	INDUCTOR 10UH	
L1104	1-412-058-11	INDUCTOR 10UH	
L1105	1-412-058-11	INDUCTOR 10UH	
L1106	1-412-064-11	INDUCTOR 100UH	
L1251	1-410-200-31	INDUCTOR 4.7UH	
L1252	1-412-058-11	INDUCTOR 10UH	
L1253	1-414-753-91	INDUCTOR 4.7UH	
L1254	1-414-753-91	INDUCTOR 4.7UH	
L1255	1-412-058-11	INDUCTOR 10UH	
L1256	1-412-058-11	INDUCTOR 10UH	
L1257	1-412-064-11	INDUCTOR 100UH	
L1258	1-412-064-11	INDUCTOR 100UH	
L1259	1-412-058-11	INDUCTOR 10UH	
L1401	1-412-058-11	INDUCTOR 10UH	
L1402	1-412-058-11	INDUCTOR 10UH	
L1403	1-412-058-11	INDUCTOR 10UH	

Ref.No.	Part No.	Description	Remark
L1404	1-414-235-22	INDUCTOR 0UH	
L1406	1-414-235-22	INDUCTOR 0UH	
L1407	1-412-796-41	INDUCTOR 47UH	
L1408	1-412-058-11	INDUCTOR 10UH	
L1409	1-414-754-11	INDUCTOR 10UH	
L1411	1-412-058-11	INDUCTOR 10UH	
L1901	1-412-058-11	INDUCTOR 10UH	
L1902	1-412-058-11	INDUCTOR 10UH	
L1903	1-412-058-11	INDUCTOR 10UH	
L1904	1-412-058-11	INDUCTOR 10UH	
L1905	1-412-058-11	INDUCTOR 10UH	
L1906	1-412-058-11	INDUCTOR 10UH	
L9001	1-414-754-11	INDUCTOR 10UH	
L9002	1-414-757-11	INDUCTOR 100UH	
L9003	1-414-757-11	INDUCTOR 100UH	
L9004	1-414-757-11	INDUCTOR 100UH	
L9005	1-414-754-11	INDUCTOR 10UH	
L9006	1-414-757-11	INDUCTOR 100UH	
L9007	1-414-757-11	INDUCTOR 100UH	
L9008	1-414-754-11	INDUCTOR 10UH	
L9009	1-414-754-11	INDUCTOR 10UH	
L9010	1-414-754-11	INDUCTOR 10UH	
L9011	1-414-754-11	INDUCTOR 10UH	
L9012	1-414-754-11	INDUCTOR 10UH	
L9101	1-414-754-11	INDUCTOR 10UH	
L9102	1-414-754-11	INDUCTOR 10UH	
L9103	1-414-754-11	INDUCTOR 10UH	
L9104	1-412-052-21	INDUCTOR 1UH	
L9201	1-414-754-11	INDUCTOR 10UH	
L9202	1-414-754-11	INDUCTOR 10UH	
L9203	1-414-754-11	INDUCTOR 10UH	
L9204	1-414-754-11	INDUCTOR 10UH	
L9501	1-412-058-11	INDUCTOR 10UH	
L9502	1-412-058-11	INDUCTOR 10UH	
L9503	1-412-058-11	INDUCTOR 10UH	
L9504	1-412-058-11	INDUCTOR 10UH	
L9505	1-412-058-11	INDUCTOR 10UH	
	<TRANSISTOR>		
Q1001	8-729-107-31	TRANSISTOR 2SC3545-T1T43T44	
Q1002	8-729-107-31	TRANSISTOR 2SC3545-T1T43T44	
Q1003	8-729-107-31	TRANSISTOR 2SC3545-T1T43T44	
Q1101	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1102	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1103	8-729-422-29	TRANSISTOR 2SC3624A-T1L15	
Q1105	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1106	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1107	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1108	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1110	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1111	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1112	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1113	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1114	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1115	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1116	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1117	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1118	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1119	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1120	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1121	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1122	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1123	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1124	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1125	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1126	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1127	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1128	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1129	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1251	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1255	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1257	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1260	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1261	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1265	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1268	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1269	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1270	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1271	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1272	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1273	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1274	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1275	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1276	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1277	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1278	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1279	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1280	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1281	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1282	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1401	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1402	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1403	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1404	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1405	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1406	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1407	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1408	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1409	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1410	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1411	8-729-903-10	TRANSISTOR FMW1-T-148	
Q1412	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1413	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1414	8-729-107-31	TRANSISTOR 2SC3545-T1T43T44	
Q1415	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1416	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1417	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1418	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1419	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1420	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1422	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1423	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1424	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1425	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1426	8-729-422-29	TRANSISTOR 2SC3624A-T1L15	
Q1427	8-729-422-29	TRANSISTOR 2SC3624A-T1L15	
Q1428	8-729-422-29	TRANSISTOR 2SC3624A-T1L15	
Q1430	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1431	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1432	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1435	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1436	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1437	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1751	8-729-038-80	TRANSISTOR 2SA1182-Y(TE85R)	
Q1901	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1902	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1903	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1904	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q1905	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1907	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q9001	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	

Ref.No.	Part No.	Description			Remark
Q9002	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q9003	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q9004	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q9201	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q9202	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q9203	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q9204	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q9205	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q9206	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q9501	8-729-902-96	TRANSISTOR FMS1-T-148			
Q9502	8-729-902-96	TRANSISTOR FMS1-T-148			
Q9503	8-729-902-96	TRANSISTOR FMS1-T-148			
Q9504	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q9505	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q9506	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
	<RESISTOR>				
R1001	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1002	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1003	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1004	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1005	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1006	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1007	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1008	1-216-013-00	RES-CHIP	33	5%	1/10W
R1009	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1010	1-216-025-11	RES-CHIP	100	5%	1/10W
R1011	1-216-025-11	RES-CHIP	100	5%	1/10W
R1012	1-216-025-11	RES-CHIP	100	5%	1/10W
R1013	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1014	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1015	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1016	1-216-009-91	RES-CHIP	22	5%	1/10W
R1017	1-216-009-91	RES-CHIP	22	5%	1/10W
R1018	1-216-009-91	RES-CHIP	22	5%	1/10W
R1019	1-216-025-11	RES-CHIP	100	5%	1/10W
R1020	1-216-025-11	RES-CHIP	100	5%	1/10W
R1021	1-216-025-11	RES-CHIP	100	5%	1/10W
R1022	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R1023	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R1024	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R1025	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R1026	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R1027	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R1028	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1029	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1030	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1031	1-216-013-00	RES-CHIP	33	5%	1/10W
R1032	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1033	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1034	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1035	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1036	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1037	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1038	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1039	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1040	1-216-013-00	RES-CHIP	33	5%	1/10W
R1040	1-216-025-11	RES-CHIP	100	5%	1/10W
R1041	1-216-013-00	RES-CHIP	33	5%	1/10W
R1041	1-216-025-11	RES-CHIP	100	5%	1/10W
R1042	1-216-013-00	RES-CHIP	33	5%	1/10W
R1042	1-216-025-11	RES-CHIP	100	5%	1/10W
R1043	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R1044	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R1045	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R1046	1-216-025-11	RES-CHIP	100	5%	1/10W
R1047	1-216-025-11	RES-CHIP	100	5%	1/10W
R1048	1-216-025-11	RES-CHIP	100	5%	1/10W
R1049	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R1050	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R1051	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R1052	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1053	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1054	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1055	1-216-005-00	RES-CHIP	15	5%	1/10W
R1056	1-216-005-00	RES-CHIP	15	5%	1/10W
R1057	1-216-005-00	RES-CHIP	15	5%	1/10W
R1058	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1060	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R1061	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1062	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1063	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1064	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1065	1-216-295-11	SHORT	0		
R1066	1-216-295-11	SHORT	0		
R1067	1-216-025-11	RES-CHIP	100	5%	1/10W
R1071	1-216-015-00	RES-CHIP	39	5%	1/10W
R1072	1-216-015-00	RES-CHIP	39	5%	1/10W
R1073	1-216-015-00	RES-CHIP	39	5%	1/10W
R1074	1-216-295-11	SHORT	0		
R1075	1-216-295-11	SHORT	0		
R1076	1-216-295-11	SHORT	0		
R1077	1-216-295-11	SHORT	0		
R1082	1-216-399-00	METAL OXIDE	6.8	5%	3W
R1083	1-216-399-00	METAL OXIDE	6.8	5%	3W
R1084	1-216-623-11	METAL CHIP	68	0.5%	1/10W
R1085	1-216-623-11	METAL CHIP	68	0.5%	1/10W
R1086	1-216-623-11	METAL CHIP	68	0.5%	1/10W
R1101	1-216-085-00	RES-CHIP	33K	5%	1/10W
R1102	1-216-009-91	RES-CHIP	22	5%	1/10W
R1103	1-216-009-91	RES-CHIP	22	5%	1/10W
R1104	1-216-009-91	RES-CHIP	22	5%	1/10W
R1105	1-216-017-91	RES-CHIP	47	5%	1/10W
R1106	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1107	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R1108	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1109	1-216-017-91	RES-CHIP	47	5%	1/10W
R1110	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1111	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1112	1-216-037-00	RES-CHIP	330	5%	1/10W
R1113	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1114	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R1115	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R1116	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1117	1-216-017-91	RES-CHIP	47	5%	1/10W
R1118	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R1123	1-216-017-91	RES-CHIP	47	5%	1/10W
R1124	1-216-025-11	RES-CHIP	100	5%	1/10W
R1126	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1127	1-216-025-11	RES-CHIP	100	5%	1/10W
R1128	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1129	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1130	1-216-025-11	RES-CHIP	100	5%	1/10W
R1131	1-216-025-11	RES-CHIP	100	5%	1/10W
R1132	1-216-009-91	RES-CHIP	22	5%	1/10W
R1134	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1135	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1136	1-216-017-91	RES-CHIP	47	5%	1/10W
R1137	1-216-025-11	RES-CHIP	100	5%	1/10W
R1138	1-216-025-11	RES-CHIP	100	5%	1/10W
R1139	1-216-089-11	RES-CHIP	47K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R1143	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1144	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1145	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1146	1-216-025-11	RES-CHIP	100	5%	1/10W
R1147	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1148	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R1149	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1150	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1151	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R1152	1-216-033-00	RES-CHIP	220	5%	1/10W
R1154	1-216-025-11	RES-CHIP	100	5%	1/10W
R1155	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1156	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1157	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1158	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R1159	1-216-047-91	RES-CHIP	820	5%	1/10W
R1160	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1161	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R1162	1-216-025-11	RES-CHIP	100	5%	1/10W
R1163	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R1164	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1165	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W
R1166	1-216-017-91	RES-CHIP	47	5%	1/10W
R1168	1-216-017-91	RES-CHIP	47	5%	1/10W
R1169	1-216-017-91	RES-CHIP	47	5%	1/10W
R1170	1-216-041-00	RES-CHIP	470	5%	1/10W
R1171	1-216-017-91	RES-CHIP	47	5%	1/10W
R1172	1-216-031-00	RES-CHIP	180	5%	1/10W
R1173	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1174	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1175	1-216-031-00	RES-CHIP	180	5%	1/10W
R1176	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1177	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1178	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1179	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1180	1-216-017-91	RES-CHIP	47	5%	1/10W
R1181	1-216-017-91	RES-CHIP	47	5%	1/10W
R1182	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1183	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1184	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R1185	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1186	1-216-017-91	RES-CHIP	47	5%	1/10W
R1187	1-216-017-91	RES-CHIP	47	5%	1/10W
R1188	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1189	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R1190	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1191	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R1192	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R1193	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1194	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R1195	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1196	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1197	1-216-025-11	RES-CHIP	100	5%	1/10W
R1198	1-216-025-11	RES-CHIP	100	5%	1/10W
R1199	1-216-025-11	RES-CHIP	100	5%	1/10W
R1200	1-216-017-91	RES-CHIP	47	5%	1/10W
R1201	1-216-017-91	RES-CHIP	47	5%	1/10W
R1202	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1203	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1204	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1205	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1206	1-216-013-00	RES-CHIP	33	5%	1/10W
R1207	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R1208	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R1209	1-216-013-00	RES-CHIP	33	5%	1/10W
R1210	1-216-025-11	RES-CHIP	100	5%	1/10W

Ref.No.	Part No.	Description			Remark
R1211	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1212	1-216-017-91	RES-CHIP	47	5%	1/10W
R1213	1-216-295-11	SHORT	0		
R1214	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1215	1-247-835-11	CARBON	1.5K	5%	1/4W
R1252	1-216-121-11	RES-CHIP	1M	5%	1/10W
R1253	1-216-295-11	SHORT	0		
R1256	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1257	1-216-041-00	RES-CHIP	470	5%	1/10W
R1258	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R1259	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R1260	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R1261	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R1263	1-216-025-11	RES-CHIP	100	5%	1/10W
R1264	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1265	1-216-025-11	RES-CHIP	100	5%	1/10W
R1266	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R1267	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R1268	1-216-037-00	RES-CHIP	330	5%	1/10W
R1269	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R1270	1-216-025-11	RES-CHIP	100	5%	1/10W
R1271	1-216-025-11	RES-CHIP	100	5%	1/10W
R1272	1-216-025-11	RES-CHIP	100	5%	1/10W
R1273	1-216-623-11	METAL CHIP	68	0.5%	1/10W
R1274	1-216-025-11	RES-CHIP	100	5%	1/10W
R1275	1-216-017-91	RES-CHIP	47	5%	1/10W
R1276	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R1277	1-216-025-11	RES-CHIP	100	5%	1/10W
R1278	1-216-025-11	RES-CHIP	100	5%	1/10W
R1279	1-216-025-11	RES-CHIP	100	5%	1/10W
R1280	1-216-025-11	RES-CHIP	100	5%	1/10W
R1283	1-216-295-11	SHORT	0		
R1290	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1293	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1294	1-216-041-00	RES-CHIP	470	5%	1/10W
R1300	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1301	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1303	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1307	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R1308	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1309	1-216-025-11	RES-CHIP	100	5%	1/10W
R1314	1-216-033-00	RES-CHIP	220	5%	1/10W
R1325	1-216-645-11	METAL CHIP	560	0.5%	1/10W
R1326	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R1327	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R1328	1-216-295-11	SHORT	0		
R1333	1-216-645-11	METAL CHIP	560	0.5%	1/10W
R1334	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1335	1-216-025-11	RES-CHIP	100	5%	1/10W
R1337	1-216-017-91	RES-CHIP	47	5%	1/10W
R1338	1-216-017-91	RES-CHIP	47	5%	1/10W
R1340	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1341	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1342	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1343	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1344	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1345	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1346	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R1347	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1348	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1349	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R1350	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1351	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R1352	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R1353	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R1354	1-216-049-11	RES-CHIP	1K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R1355	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1356	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1357	1-216-025-11	RES-CHIP	100	5%	1/10W
R1358	1-216-025-11	RES-CHIP	100	5%	1/10W
R1359	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1360	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1361	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1362	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1363	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R1364	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R1365	1-216-017-91	RES-CHIP	47	5%	1/10W
R1366	1-216-017-91	RES-CHIP	47	5%	1/10W
R1401	1-216-017-91	RES-CHIP	47	5%	1/10W
R1403	1-216-017-91	RES-CHIP	47	5%	1/10W
R1404	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1405	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1406	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1407	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1408	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1409	1-216-017-91	RES-CHIP	47	5%	1/10W
R1410	1-216-025-11	RES-CHIP	100	5%	1/10W
R1411	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1412	1-216-025-11	RES-CHIP	100	5%	1/10W
R1413	1-216-025-11	RES-CHIP	100	5%	1/10W
R1414	1-216-025-11	RES-CHIP	100	5%	1/10W
R1415	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1416	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R1417	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R1418	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1419	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R1420	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1421	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1422	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R1423	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1424	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R1425	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R1426	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R1427	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1428	1-216-017-91	RES-CHIP	47	5%	1/10W
R1429	1-216-295-11	SHORT	0		
R1430	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1431	1-216-091-00	RES-CHIP	56K	5%	1/10W
R1432	1-216-017-91	RES-CHIP	47	5%	1/10W
R1433	1-216-017-91	RES-CHIP	47	5%	1/10W
R1434	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R1435	1-216-017-91	RES-CHIP	47	5%	1/10W
R1436	1-216-083-00	RES-CHIP	27K	5%	1/10W
R1437	1-216-017-91	RES-CHIP	47	5%	1/10W
R1438	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1439	1-216-033-00	RES-CHIP	220	5%	1/10W
R1440	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1441	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1442	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1443	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1444	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1445	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1446	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1447	1-216-047-91	RES-CHIP	820	5%	1/10W
R1448	1-216-017-91	RES-CHIP	47	5%	1/10W
R1449	1-216-017-91	RES-CHIP	47	5%	1/10W
R1450	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1451	1-216-017-91	RES-CHIP	47	5%	1/10W
R1452	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1453	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1454	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R1455	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R1456	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R1457	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R1458	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1459	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R1460	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R1461	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R1462	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1463	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R1464	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1465	1-216-017-91	RES-CHIP	47	5%	1/10W
R1466	1-216-295-11	SHORT	0		
R1467	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1468	1-216-017-91	RES-CHIP	47	5%	1/10W
R1469	1-216-017-91	RES-CHIP	47	5%	1/10W
R1470	1-218-767-11	METAL CHIP	430K	0.5%	1/10W
R1471	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R1472	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R1473	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1475	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1476	1-216-101-00	RES-CHIP	150K	5%	1/10W
R1477	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1478	1-216-017-91	RES-CHIP	47	5%	1/10W
R1482	1-216-017-91	RES-CHIP	47	5%	1/10W
R1483	1-216-017-91	RES-CHIP	47	5%	1/10W
R1484	1-216-017-91	RES-CHIP	47	5%	1/10W
R1485	1-216-017-91	RES-CHIP	47	5%	1/10W
R1486	1-216-017-91	RES-CHIP	47	5%	1/10W
R1487	1-216-017-91	RES-CHIP	47	5%	1/10W
R1488	1-216-017-91	RES-CHIP	47	5%	1/10W
R1489	1-216-017-91	RES-CHIP	47	5%	1/10W
R1490	1-216-017-91	RES-CHIP	47	5%	1/10W
R1491	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1492	1-216-085-00	RES-CHIP	33K	5%	1/10W
R1493	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1494	1-216-085-00	RES-CHIP	33K	5%	1/10W
R1495	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1496	1-216-085-00	RES-CHIP	33K	5%	1/10W
R1497	1-216-025-11	RES-CHIP	100	5%	1/10W
R1498	1-216-025-11	RES-CHIP	100	5%	1/10W
R1499	1-216-025-11	RES-CHIP	100	5%	1/10W
R1500	1-216-025-11	RES-CHIP	100	5%	1/10W
R1501	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1502	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1503	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1504	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1505	1-216-645-11	METAL CHIP	560	0.5%	1/10W
R1506	1-216-645-11	METAL CHIP	560	0.5%	1/10W
R1507	1-216-645-11	METAL CHIP	560	0.5%	1/10W
R1508	1-216-025-11	RES-CHIP	100	5%	1/10W
R1509	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1510	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R1511	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R1512	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R1513	1-216-025-11	RES-CHIP	100	5%	1/10W
R1514	1-216-025-11	RES-CHIP	100	5%	1/10W
R1515	1-216-037-00	RES-CHIP	330	5%	1/10W
R1516	1-216-037-00	RES-CHIP	330	5%	1/10W
R1517	1-216-037-00	RES-CHIP	330	5%	1/10W
R1526	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1528	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1530	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1535	1-216-295-11	SHORT	0		
R1536	1-216-017-91	RES-CHIP	47	5%	1/10W
R1537	1-216-017-91	RES-CHIP	47	5%	1/10W
R1538	1-216-017-91	RES-CHIP	47	5%	1/10W
R1539	1-216-057-00	RES-CHIP	2.2K	5%	1/10W

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Ref.No.	Part No.	Description			Remark
R1540	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1541	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1754	1-216-295-11	SHORT	0		
R1759	1-216-039-00	RES-CHIP	390	5%	1/10W
R1760	1-216-039-00	RES-CHIP	390	5%	1/10W
R1761	1-216-039-00	RES-CHIP	390	5%	1/10W
R1762	1-216-039-00	RES-CHIP	390	5%	1/10W
R1766	1-216-039-00	RES-CHIP	390	5%	1/10W
R1767	1-216-039-00	RES-CHIP	390	5%	1/10W
R1768	1-216-039-00	RES-CHIP	390	5%	1/10W
R1769	1-216-039-00	RES-CHIP	390	5%	1/10W
R1770	1-216-039-00	RES-CHIP	390	5%	1/10W
R1771	1-216-039-00	RES-CHIP	390	5%	1/10W
R1772	1-216-039-00	RES-CHIP	390	5%	1/10W
R1773	1-216-039-00	RES-CHIP	390	5%	1/10W
R1774	1-216-295-11	SHORT	0		
R1777	1-216-039-00	RES-CHIP	390	5%	1/10W
R1778	1-216-039-00	RES-CHIP	390	5%	1/10W
R1781	1-216-039-00	RES-CHIP	390	5%	1/10W
R1782	1-216-039-00	RES-CHIP	390	5%	1/10W
R1783	1-216-039-00	RES-CHIP	390	5%	1/10W
R1784	1-216-039-00	RES-CHIP	390	5%	1/10W
R1785	1-216-039-00	RES-CHIP	390	5%	1/10W
R1786	1-216-039-00	RES-CHIP	390	5%	1/10W
R1787	1-216-039-00	RES-CHIP	390	5%	1/10W
R1788	1-216-039-00	RES-CHIP	390	5%	1/10W
R1789	1-216-039-00	RES-CHIP	390	5%	1/10W
R1790	1-216-039-00	RES-CHIP	390	5%	1/10W
R1791	1-216-039-00	RES-CHIP	390	5%	1/10W
R1792	1-216-039-00	RES-CHIP	390	5%	1/10W
R1793	1-216-039-00	RES-CHIP	390	5%	1/10W
R1794	1-216-039-00	RES-CHIP	390	5%	1/10W
R1795	1-216-039-00	RES-CHIP	390	5%	1/10W
R1796	1-216-039-00	RES-CHIP	390	5%	1/10W
R1797	1-216-039-00	RES-CHIP	390	5%	1/10W
R1799	1-216-039-00	RES-CHIP	390	5%	1/10W
R1802	1-216-025-11	RES-CHIP	100	5%	1/10W
R1807	1-216-039-00	RES-CHIP	390	5%	1/10W
R1808	1-216-039-00	RES-CHIP	390	5%	1/10W
R1809	1-216-039-00	RES-CHIP	390	5%	1/10W
R1810	1-216-039-00	RES-CHIP	390	5%	1/10W
R1811	1-216-039-00	RES-CHIP	390	5%	1/10W
R1812	1-216-039-00	RES-CHIP	390	5%	1/10W
R1813	1-216-039-00	RES-CHIP	390	5%	1/10W
R1814	1-216-039-00	RES-CHIP	390	5%	1/10W
R1815	1-216-039-00	RES-CHIP	390	5%	1/10W
R1816	1-216-039-00	RES-CHIP	390	5%	1/10W
R1817	1-216-039-00	RES-CHIP	390	5%	1/10W
R1818	1-216-039-00	RES-CHIP	390	5%	1/10W
R1819	1-216-039-00	RES-CHIP	390	5%	1/10W
R1820	1-216-039-00	RES-CHIP	390	5%	1/10W
R1821	1-216-039-00	RES-CHIP	390	5%	1/10W
R1822	1-216-039-00	RES-CHIP	390	5%	1/10W
R1823	1-216-295-11	SHORT	0		
R1827	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1828	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R1829	1-216-025-11	RES-CHIP	100	5%	1/10W
R1830	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R1831	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1832	1-216-295-11	SHORT	0		
R1833	1-216-295-11	SHORT	0		
R1834	1-216-295-11	SHORT	0		
R1901	1-216-025-11	RES-CHIP	100	5%	1/10W
R1902	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1905	1-216-013-00	RES-CHIP	33	5%	1/10W
R1906	1-216-013-00	RES-CHIP	33	5%	1/10W
R1907	1-216-013-00	RES-CHIP	33	5%	1/10W
R1909	1-216-013-00	RES-CHIP	33	5%	1/10W
R1910	1-216-013-00	RES-CHIP	33	5%	1/10W
R1914	1-216-025-11	RES-CHIP	100	5%	1/10W
R1916	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R1917	1-216-033-00	RES-CHIP	220	5%	1/10W
R1918	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1919	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1920	1-216-639-11	METAL CHIP	330	0.5%	1/10W
R1921	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1922	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R1923	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1924	1-216-025-11	RES-CHIP	100	5%	1/10W
R1927	1-216-025-11	RES-CHIP	100	5%	1/10W
R1928	1-216-013-00	RES-CHIP	33	5%	1/10W
R1929	1-216-013-00	RES-CHIP	33	5%	1/10W
R1930	1-216-025-11	RES-CHIP	100	5%	1/10W
R1931	1-216-013-00	RES-CHIP	33	5%	1/10W
R1932	1-216-025-11	RES-CHIP	100	5%	1/10W
R1934	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1935	1-216-025-11	RES-CHIP	100	5%	1/10W
R1936	1-216-025-11	RES-CHIP	100	5%	1/10W
R1937	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1938	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1939	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1940	1-216-013-00	RES-CHIP	33	5%	1/10W
R1941	1-216-025-11	RES-CHIP	100	5%	1/10W
R1942	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W
R1943	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R1948	1-216-295-11	SHORT	0		
R1949	1-216-295-11	SHORT	0		
R1950	1-216-295-11	SHORT	0		
R1952	1-216-295-11	SHORT	0		
R1956	1-216-039-00	RES-CHIP	390	5%	1/10W
R1957	1-216-039-00	RES-CHIP	390	5%	1/10W
R1958	1-216-039-00	RES-CHIP	390	5%	1/10W
R1959	1-216-039-00	RES-CHIP	390	5%	1/10W
R1960	1-216-039-00	RES-CHIP	390	5%	1/10W
R1961	1-216-039-00	RES-CHIP	390	5%	1/10W
R1962	1-216-039-00	RES-CHIP	390	5%	1/10W
R1963	1-216-039-00	RES-CHIP	390	5%	1/10W
R1964	1-216-037-00	RES-CHIP	330	5%	1/10W
R1965	1-216-037-00	RES-CHIP	330	5%	1/10W
R1966	1-216-037-00	RES-CHIP	330	5%	1/10W
R1967	1-216-037-00	RES-CHIP	330	5%	1/10W
R1968	1-216-295-11	SHORT	0		
R1969	1-216-295-11	SHORT	0		
R1970	1-216-295-11	SHORT	0		
R1971	1-216-295-11	SHORT	0		
R1972	1-216-039-00	RES-CHIP	390	5%	1/10W
R1973	1-216-039-00	RES-CHIP	390	5%	1/10W
R1974	1-216-295-11	SHORT	0		
R1975	1-216-295-11	SHORT	0		
R1976	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1977	1-216-025-11	RES-CHIP	100	5%	1/10W
R1978	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1979	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1980	1-216-295-11	SHORT	0		
R1981	1-216-295-11	SHORT	0		
R1982	1-216-295-11	SHORT	0		
R1983	1-216-295-11	SHORT	0		
R1992	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1993	1-216-037-00	RES-CHIP	330	5%	1/10W
R1994	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1995	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1996	1-216-073-00	RES-CHIP	10K	5%	1/10W

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Ref.No.	Part No.	Description			Remark
R1997	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1998	1-216-013-00	RES-CHIP	33	5%	1/10W
R1999	1-216-013-00	RES-CHIP	33	5%	1/10W
R9001	1-216-295-11	SHORT	0		
R9002	1-216-047-91	RES-CHIP	820	5%	1/10W
R9003	1-216-037-00	RES-CHIP	330	5%	1/10W
R9004	1-216-037-00	RES-CHIP	330	5%	1/10W
R9005	1-216-295-11	SHORT	0		
R9006	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9007	1-216-117-00	RES-CHIP	680K	5%	1/10W
R9008	1-216-097-11	RES-CHIP	100K	5%	1/10W
R9009	1-216-066-00	RES-CHIP	5.1K	5%	1/10W
R9010	1-216-117-00	RES-CHIP	680K	5%	1/10W
R9011	1-216-295-11	SHORT	0		
R9013	1-216-113-00	RES-CHIP	470K	5%	1/10W
R9014	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9015	1-216-025-11	RES-CHIP	100	5%	1/10W
R9016	1-216-025-11	RES-CHIP	100	5%	1/10W
R9017	1-216-033-00	RES-CHIP	220	5%	1/10W
R9018	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9019	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9020	1-216-091-00	RES-CHIP	56K	5%	1/10W
R9021	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9022	1-216-062-00	RES-CHIP	3.6K	5%	1/10W
R9024	1-216-113-00	RES-CHIP	470K	5%	1/10W
R9025	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9027	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9028	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9029	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9034	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R9035	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R9036	1-216-623-11	METAL CHIP	68	0.5%	1/10W
R9037	1-216-623-11	METAL CHIP	68	0.5%	1/10W
R9038	1-216-025-11	RES-CHIP	100	5%	1/10W
R9039	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R9040	1-216-295-11	SHORT	0		
R9041	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R9042	1-216-077-91	RES-CHIP	15K	5%	1/10W
R9043	1-216-077-91	RES-CHIP	15K	5%	1/10W
R9044	1-216-077-91	RES-CHIP	15K	5%	1/10W
R9045	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R9046	1-216-295-11	SHORT	0		
R9047	1-216-295-11	SHORT	0		
R9048	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R9049	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R9050	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R9051	1-216-621-11	METAL CHIP	56	0.5%	1/10W
R9052	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R9053	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R9054	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R9055	1-216-025-11	RES-CHIP	100	5%	1/10W
R9101	1-216-295-11	SHORT	0		
R9104	1-216-295-11	SHORT	0		
R9106	1-216-295-11	SHORT	0		
R9108	1-216-295-11	SHORT	0		
R9110	1-216-295-11	SHORT	0		
R9111	1-216-295-11	SHORT	0		
R9113	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R9114	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R9115	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R9117	1-216-295-11	SHORT	0		
R9120	1-216-295-11	SHORT	0		
R9121	1-216-295-11	SHORT	0		
R9123	1-216-295-11	SHORT	0		
R9126	1-216-295-11	SHORT	0		
R9128	1-216-295-11	SHORT	0		

Ref.No.	Part No.	Description			Remark
R9130	1-216-295-11	SHORT	0		
R9133	1-216-295-11	SHORT	0		
R9135	1-216-295-11	SHORT	0		
R9201	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9203	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9205	1-216-295-11	SHORT	0		
R9208	1-216-295-11	SHORT	0		
R9209	1-216-295-11	SHORT	0		
R9211	1-216-295-11	SHORT	0		
R9214	1-216-295-11	SHORT	0		
R9216	1-216-295-11	SHORT	0		
R9217	1-216-295-11	SHORT	0		
R9219	1-216-295-11	SHORT	0		
R9222	1-216-295-11	SHORT	0		
R9223	1-216-295-11	SHORT	0		
R9226	1-216-295-11	SHORT	0		
R9228	1-216-295-11	SHORT	0		
R9230	1-216-295-11	SHORT	0		
R9231	1-216-295-11	SHORT	0		
R9233	1-216-025-11	RES-CHIP	100	5%	1/10W
R9234	1-216-025-11	RES-CHIP	100	5%	1/10W
R9239	1-216-295-11	SHORT	0		
R9243	1-216-295-11	SHORT	0		
R9244	1-216-295-11	SHORT	0		
R9245	1-216-295-11	SHORT	0		
R9246	1-216-295-11	SHORT	0		
R9249	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R9252	1-216-637-11	METAL CHIP	270	0.5%	1/10W
R9253	1-216-646-11	METAL CHIP	620	0.5%	1/10W
R9254	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R9255	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R9256	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R9257	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9258	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9259	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9260	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9261	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9262	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9263	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9264	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9265	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9266	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R9267	1-216-025-11	RES-CHIP	100	5%	1/10W
R9268	1-216-025-11	RES-CHIP	100	5%	1/10W
R9269	1-216-025-11	RES-CHIP	100	5%	1/10W
R9270	1-216-045-00	RES-CHIP	680	5%	1/10W
R9271	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R9272	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9273	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9274	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R9275	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R9276	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R9277	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R9278	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R9279	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9280	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9281	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9283	1-216-295-11	SHORT	0		
R9284	1-216-295-11	SHORT	0		
R9285	1-216-295-11	SHORT	0		
R9286	1-216-295-11	SHORT	0		
R9287	1-216-017-91	RES-CHIP	47	5%	1/10W
R9301	1-216-013-00	RES-CHIP	33	5%	1/10W
R9302	1-216-013-00	RES-CHIP	33	5%	1/10W
R9303	1-216-013-00	RES-CHIP	33	5%	1/10W
R9304	1-216-013-00	RES-CHIP	33	5%	1/10W

Ref.No.	Part No.	Description			Remark
R9305	1-216-013-00	RES-CHIP	33	5%	1/10W
R9306	1-216-013-00	RES-CHIP	33	5%	1/10W
R9307	1-216-013-00	RES-CHIP	33	5%	1/10W
R9308	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9309	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9310	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9311	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9312	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9313	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9314	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9315	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9316	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9317	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9321	1-216-121-11	RES-CHIP	1M	5%	1/10W
R9322	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9323	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9324	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9325	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9326	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9327	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9328	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9329	1-216-025-11	RES-CHIP	100	5%	1/10W
R9331	1-216-025-11	RES-CHIP	100	5%	1/10W
R9333	1-216-089-11	RES-CHIP	47K	5%	1/10W
R9334	1-216-025-11	RES-CHIP	100	5%	1/10W
R9339	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R9340	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9341	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9342	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9343	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9347	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R9401	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9402	1-216-025-11	RES-CHIP	100	5%	1/10W
R9403	1-216-025-11	RES-CHIP	100	5%	1/10W
R9501	1-216-083-00	RES-CHIP	27K	5%	1/10W
R9502	1-216-089-11	RES-CHIP	47K	5%	1/10W
R9503	1-216-017-91	RES-CHIP	47	5%	1/10W
R9504	1-216-025-11	RES-CHIP	100	5%	1/10W
R9505	1-216-025-11	RES-CHIP	100	5%	1/10W
R9506	1-216-133-00	RES-CHIP	3.3M	5%	1/10W
R9508	1-216-295-11	SHORT	0		
R9510	1-216-295-11	SHORT	0		
R9511	1-216-017-91	RES-CHIP	47	5%	1/10W
R9512	1-216-017-91	RES-CHIP	47	5%	1/10W
R9513	1-216-037-00	RES-CHIP	330	5%	1/10W
R9515	1-216-037-00	RES-CHIP	330	5%	1/10W
R9517	1-216-037-00	RES-CHIP	330	5%	1/10W
R9519	1-216-017-91	RES-CHIP	47	5%	1/10W
R9520	1-216-017-91	RES-CHIP	47	5%	1/10W
R9521	1-216-017-91	RES-CHIP	47	5%	1/10W
R9522	1-216-017-91	RES-CHIP	47	5%	1/10W
R9523	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R9524	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9525	1-216-089-11	RES-CHIP	47K	5%	1/10W
R9526	1-216-017-91	RES-CHIP	47	5%	1/10W
R9527	1-216-017-91	RES-CHIP	47	5%	1/10W
R9528	1-216-017-91	RES-CHIP	47	5%	1/10W
R9529	1-216-077-91	RES-CHIP	15K	5%	1/10W
R9530	1-216-017-91	RES-CHIP	47	5%	1/10W
R9531	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9532	1-216-037-00	RES-CHIP	330	5%	1/10W
R9535	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R9536	1-216-089-11	RES-CHIP	47K	5%	1/10W
R9537	1-216-295-11	SHORT	0		
R9538	1-216-085-00	RES-CHIP	33K	5%	1/10W
R9539	1-216-037-00	RES-CHIP	330	5%	1/10W

Ref.No.	Part No.	Description			Remark
R9540	1-216-017-91	RES-CHIP	47	5%	1/10W
R9545	1-216-017-91	RES-CHIP	47	5%	1/10W
R9546	1-216-017-91	RES-CHIP	47	5%	1/10W
R9547	1-216-017-91	RES-CHIP	47	5%	1/10W
R9551	1-216-089-11	RES-CHIP	47K	5%	1/10W
R9552	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9553	1-216-037-00	RES-CHIP	330	5%	1/10W
R9554	1-216-017-91	RES-CHIP	47	5%	1/10W
R9555	1-216-017-91	RES-CHIP	47	5%	1/10W
R9556	1-216-017-91	RES-CHIP	47	5%	1/10W
R9557	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R9558	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W

<CRYSTAL>

Ref.No.	Part No.	Description
X1201	1-767-606-11	VIBRATOR, CRYSTAL
X1401	1-760-191-11	VIBRATOR, CRYSTAL
X1402	1-760-191-11	VIBRATOR, CRYSTAL
X1403	1-579-973-11	VIBRATOR, CRYSTAL
X1901	1-760-273-11	VIBRATOR, CRYSTAL

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* A-1136-151-A BB COMPL
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Part No.	Description
3-179-084-01	LEVER (R), PC BOARD
3-179-085-01	LEVER (L), PC BOARD
* 4-068-822-01	SHEET, FILTER

<CAPACITOR>

Ref.No.	Part No.	Description			Remark
C3001	1-128-401-11	ELECT CHIP	100UF	20%	25V
C3002	1-128-393-11	ELECT CHIP	100UF	20%	10V
C3003	1-128-393-11	ELECT CHIP	100UF	20%	10V
C3004	1-128-401-11	ELECT CHIP	100UF	20%	25V
C3005	1-128-393-11	ELECT CHIP	100UF	20%	10V
C3006	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3007	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3008	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3009	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3010	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3011	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3012	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3013	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3014	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3015	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3016	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3017	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3018	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3019	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3020	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3021	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3022	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3023	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3024	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3025	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3026	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3027	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3028	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3029	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3030	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3031	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3032	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3033	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3034	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3101	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V

Ref.No.	Part No.	Description	Remark
C3102	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3103	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3104	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3105	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3106	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3107	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3108	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3109	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3110	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3111	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3112	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3113	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3114	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3115	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3116	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3117	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3118	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3119	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3120	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3121	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3122	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3123	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3124	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3125	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3126	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3127	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3128	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3129	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3130	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3131	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3132	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3201	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3202	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3203	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3204	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3205	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3206	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3221	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3222	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3225	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3226	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3227	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3301	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3302	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3303	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3304	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3305	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3306	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3307	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3308	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3309	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3310	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3311	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3312	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3313	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3314	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3315	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3316	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3317	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3318	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3319	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3320	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3321	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3322	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3401	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3402	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3403	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3404	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3405	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3406	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3407	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3408	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3409	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3410	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3411	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3412	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3413	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3414	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3415	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3416	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3417	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3418	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3419	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3420	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3421	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3422	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3501	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3502	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3503	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3504	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3505	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3506	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3507	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3508	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3509	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3510	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3511	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3512	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3513	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3514	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3515	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3516	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3517	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3518	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3519	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3520	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3521	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3522	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3601	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C3602	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C3603	1-126-395-11	ELECT CHIP 22UF 20% 16V	
C3604	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3605	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3607	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3608	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3609	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
C3610	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C3611	1-126-395-11	ELECT CHIP 22UF 20% 16V	
C3612	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3613	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3614	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3615	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3616	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3617	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3618	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3619	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3620	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3621	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3622	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3623	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3624	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C3625	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	

Ref.No.	Part No.	Description			Remark
C3627	1-128-393-11	ELECT CHIP	100UF	20%	10V
C3628	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3629	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3630	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3631	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3632	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3633	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3634	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3635	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3636	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3637	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3638	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3801	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3802	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3803	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3804	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3805	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3806	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3807	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3808	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3809	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3810	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3811	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3812	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C3813	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3814	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3815	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3816	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3817	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3818	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3819	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3820	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3821	1-126-205-11	ELECT CHIP	47UF	20%	6.3V
C3822	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3823	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3824	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3825	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3826	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3827	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3828	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3829	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3830	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3831	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3832	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3833	1-128-004-11	ELECT CHIP	10UF	20%	16V
C3834	1-128-004-11	ELECT CHIP	10UF	20%	16V
C3835	1-128-004-11	ELECT CHIP	10UF	20%	16V
C3836	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3837	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3838	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3839	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3840	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C3841	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3842	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C3843	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3844	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C3845	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C3846	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C3847	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C3848	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3849	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3850	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3851	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3852	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3853	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3854	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V

Ref.No.	Part No.	Description			Remark
C3855	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C3856	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
	<CONNECTOR>				
CN3201	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P			
CN3602	* 1-770-837-11	CONNECTOR, BOARD TO BOARD 30P			
CN3801	* 1-580-789-21	PIN, CONNECTOR (SMD) 6P			
	<DIODE>				
D3801	8-719-036-65	DIODE RD2.0SB-T1			
D3802	8-719-036-65	DIODE RD2.0SB-T1			
D3803	8-719-036-65	DIODE RD2.0SB-T1			
	<FERRITE BEAD>				
FB3202	1-469-365-21	FERRITE	0UH		
FB3204	1-469-365-21	FERRITE	0UH		
FB3602	1-469-365-21	FERRITE	0UH		
FB3801	1-469-365-21	FERRITE	0UH		
FB3802	1-469-365-21	FERRITE	0UH		
FB3803	1-469-365-21	FERRITE	0UH		
FB3805	1-469-365-21	FERRITE	0UH		
FB3807	1-469-365-21	FERRITE	0UH		
	<FILTER>				
FL3001	1-239-466-21	FILTER, EMI			
FL3002	1-239-400-11	FILTER, CHIP	EMI		
FL3003	1-239-400-11	FILTER, CHIP	EMI		
FL3004	1-239-466-21	FILTER, EMI			
FL3005	1-239-466-21	FILTER, EMI			
FL3006	1-239-466-21	FILTER, EMI			
FL3007	1-239-466-21	FILTER, EMI			
FL3008	1-239-400-11	FILTER, CHIP	EMI		
FL3016	1-239-466-21	FILTER, EMI			
FL3025	1-239-466-21	FILTER, EMI			
FL3026	1-239-466-21	FILTER, EMI			
FL3027	1-239-466-21	FILTER, EMI			
	<IC>				
IC3001	8-759-456-26	IC 74LCX541MTCX			
IC3002	8-759-456-26	IC 74LCX541MTCX			
IC3003	8-759-386-26	IC 74LCX574MTCX			
IC3004	8-759-386-26	IC 74LCX574MTCX			
IC3005	8-759-012-13	IC MC10H125MEL			
IC3006	8-759-012-00	IC MC10H116MEL			
IC3007	8-759-563-32	IC CXG8007TQ			
IC3008	8-759-389-26	IC 74LCX08MTCX			
IC3009	8-759-389-26	IC 74LCX08MTCX			
IC3010	8-759-386-26	IC 74LCX574MTCX			
IC3011	8-759-386-26	IC 74LCX574MTCX			
IC3012	8-759-490-41	IC TC74VHCT541AFT(EL)			
IC3101	8-759-563-32	IC CXG8007TQ			
IC3102	8-759-563-32	IC CXG8007TQ			
IC3201	8-759-676-30	IC CXD9575TQ			
IC3202	* 8-759-698-53	IC ISPLSI2032VE-110LT44-BB02V1			
IC3203	8-759-456-26	IC 74LCX541MTCX			
IC3204	8-759-456-26	IC 74LCX541MTCX			
IC3301	8-759-559-51	IC IP90C63A			
IC3302	8-759-585-35	IC EM636327TQ-8			
IC3303	8-759-559-51	IC IP90C63A			
IC3304	8-759-585-35	IC EM636327TQ-8			
IC3305	8-759-466-57	IC 74LCX157MTCX			
IC3306	8-759-466-57	IC 74LCX157MTCX			
IC3307	8-759-466-57	IC 74LCX157MTCX			

Ref.No.	Part No.	Description			Remark
IC3308	8-759-466-57	IC 74LCX157MTCX			
IC3309	8-759-386-26	IC 74LCX574MTCX			
IC3310	8-759-386-26	IC 74LCX574MTCX			
IC3401	8-759-559-51	IC IP90C63A			
IC3402	8-759-585-35	IC EM636327TQ-8			
IC3403	8-759-559-51	IC IP90C63A			
IC3404	8-759-585-35	IC EM636327TQ-8			
IC3405	8-759-466-57	IC 74LCX157MTCX			
IC3406	8-759-466-57	IC 74LCX157MTCX			
IC3407	8-759-466-57	IC 74LCX157MTCX			
IC3408	8-759-466-57	IC 74LCX157MTCX			
IC3409	8-759-386-26	IC 74LCX574MTCX			
IC3410	8-759-386-26	IC 74LCX574MTCX			
IC3501	8-759-559-51	IC IP90C63A			
IC3502	8-759-585-35	IC EM636327TQ-8			
IC3503	8-759-559-51	IC IP90C63A			
IC3504	8-759-585-35	IC EM636327TQ-8			
IC3505	8-759-466-57	IC 74LCX157MTCX			
IC3506	8-759-466-57	IC 74LCX157MTCX			
IC3507	8-759-466-57	IC 74LCX157MTCX			
IC3508	8-759-466-57	IC 74LCX157MTCX			
IC3509	8-759-386-26	IC 74LCX574MTCX			
IC3510	8-759-386-26	IC 74LCX574MTCX			
IC3601	8-759-647-53	IC IMISM530AYB-D REV.T			
IC3602	* 8-759-698-55	IC ISPLSI2064VE-135LT44-BB03V1			
IC3603	8-759-639-17	IC 74LVT244MTCX			
IC3604	8-759-647-53	IC IMISM530AYB-D REV.T			
IC3605	8-759-456-26	IC 74LCX541MTCX			
IC3606	8-759-456-26	IC 74LCX541MTCX			
IC3607	8-759-639-16	IC GMZ3CH2			
IC3608	8-759-456-26	IC 74LCX541MTCX			
IC3609	8-759-456-26	IC 74LCX541MTCX			
IC3610	8-759-456-26	IC 74LCX541MTCX			
IC3611	8-759-477-70	IC MC10H351MEL			
IC3612	8-759-456-26	IC 74LCX541MTCX			
IC3613	8-759-466-55	IC 74LCX74MTCX			
IC3614	8-759-466-55	IC 74LCX74MTCX			
IC3801	8-759-592-38	IC CXD9512Q			
IC3802	8-759-544-01	IC S-80828ANNP-EDR-T2			
IC3803	* 8-759-684-72	IC M24C64-WMN6T(A)			
IC3805	8-759-645-13	IC ADV7123KST140			
IC3806	8-759-645-13	IC ADV7123KST140			
IC3807	8-759-645-13	IC ADV7123KST140			
	<TRANSISTOR>				
Q3801	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q3802	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
	<RESISTOR>				
R3001	1-216-025-11	RES-CHIP	100	5%	1/10W
R3002	1-216-025-11	RES-CHIP	100	5%	1/10W
R3003	1-216-025-11	RES-CHIP	100	5%	1/10W
R3004	1-216-295-11	SHORT	0		
R3005	1-216-025-11	RES-CHIP	100	5%	1/10W
R3006	1-216-019-00	RES-CHIP	56	5%	1/10W
R3007	1-216-019-00	RES-CHIP	56	5%	1/10W
R3008	1-216-019-00	RES-CHIP	56	5%	1/10W
R3009	1-216-019-00	RES-CHIP	56	5%	1/10W
R3010	1-216-025-11	RES-CHIP	100	5%	1/10W
R3011	1-216-025-11	RES-CHIP	100	5%	1/10W
R3012	1-216-025-11	RES-CHIP	100	5%	1/10W
R3013	1-216-025-11	RES-CHIP	100	5%	1/10W
R3014	1-216-025-11	RES-CHIP	100	5%	1/10W
R3015	1-216-025-11	RES-CHIP	100	5%	1/10W

Ref.No.	Part No.	Description			Remark
R3016	1-216-025-11	RES-CHIP	100	5%	1/10W
R3017	1-216-025-11	RES-CHIP	100	5%	1/10W
R3020	1-216-009-91	RES-CHIP	22	5%	1/10W
R3022	1-216-009-91	RES-CHIP	22	5%	1/10W
R3023	1-216-009-91	RES-CHIP	22	5%	1/10W
R3024	1-216-009-91	RES-CHIP	22	5%	1/10W
R3025	1-216-009-91	RES-CHIP	22	5%	1/10W
R3101	1-216-025-11	RES-CHIP	100	5%	1/10W
R3102	1-216-025-11	RES-CHIP	100	5%	1/10W
R3103	1-216-025-11	RES-CHIP	100	5%	1/10W
R3104	1-216-025-11	RES-CHIP	100	5%	1/10W
R3105	1-216-025-11	RES-CHIP	100	5%	1/10W
R3106	1-216-025-11	RES-CHIP	100	5%	1/10W
R3107	1-216-025-11	RES-CHIP	100	5%	1/10W
R3108	1-216-025-11	RES-CHIP	100	5%	1/10W
R3111	1-216-009-91	RES-CHIP	22	5%	1/10W
R3113	1-216-009-91	RES-CHIP	22	5%	1/10W
R3114	1-216-025-11	RES-CHIP	100	5%	1/10W
R3115	1-216-025-11	RES-CHIP	100	5%	1/10W
R3116	1-216-025-11	RES-CHIP	100	5%	1/10W
R3117	1-216-025-11	RES-CHIP	100	5%	1/10W
R3118	1-216-025-11	RES-CHIP	100	5%	1/10W
R3119	1-216-025-11	RES-CHIP	100	5%	1/10W
R3120	1-216-025-11	RES-CHIP	100	5%	1/10W
R3121	1-216-025-11	RES-CHIP	100	5%	1/10W
R3122	1-216-009-91	RES-CHIP	22	5%	1/10W
R3124	1-216-009-91	RES-CHIP	22	5%	1/10W
R3127	1-216-009-91	RES-CHIP	22	5%	1/10W
R3217	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3218	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3221	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3224	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3226	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3229	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3232	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3233	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3234	1-216-009-91	RES-CHIP	22	5%	1/10W
R3241	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3250	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3254	1-216-295-11	SHORT	0		
R3255	1-216-009-91	RES-CHIP	22	5%	1/10W
R3256	1-216-009-91	RES-CHIP	22	5%	1/10W
R3257	1-216-009-91	RES-CHIP	22	5%	1/10W
R3258	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3267	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3276	1-216-009-91	RES-CHIP	22	5%	1/10W
R3277	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3282	1-216-009-91	RES-CHIP	22	5%	1/10W
R3283	1-216-009-91	RES-CHIP	22	5%	1/10W
R3303	1-216-295-11	SHORT	0		
R3306	1-216-295-11	SHORT	0		
R3403	1-216-295-11	SHORT	0		
R3406	1-216-295-11	SHORT	0		
R3503	1-216-295-11	SHORT	0		
R3506	1-216-295-11	SHORT	0		
R3601	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R3602	1-216-295-11	SHORT	0		
R3603	1-216-295-11	SHORT	0		
R3604	1-216-295-11	SHORT	0		
R3605	1-216-295-11	SHORT	0		
R3606	1-216-295-11	SHORT	0		
R3607	1-216-001-00	RES-CHIP	10	5%	1/10W
R3608	1-216-009-91	RES-CHIP	22	5%	1/10W
R3610	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3611	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3612	1-216-295-11	SHORT	0		

Ref.No.	Part No.	Description			Remark
R3613	1-216-009-91	RES-CHIP	22	5%	1/10W
R3614	1-216-009-91	RES-CHIP	22	5%	1/10W
R3615	1-216-009-91	RES-CHIP	22	5%	1/10W
R3616	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3617	1-216-295-11	SHORT	0		
R3618	1-216-295-11	SHORT	0		
R3619	1-216-295-11	SHORT	0		
R3620	1-216-295-11	SHORT	0		
R3622	1-216-009-91	RES-CHIP	22	5%	1/10W
R3623	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3624	1-216-009-91	RES-CHIP	22	5%	1/10W
R3625	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3626	1-216-009-91	RES-CHIP	22	5%	1/10W
R3627	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3628	1-216-009-91	RES-CHIP	22	5%	1/10W
R3629	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3630	1-216-009-91	RES-CHIP	22	5%	1/10W
R3631	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R3633	1-216-009-91	RES-CHIP	22	5%	1/10W
R3634	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3635	1-216-009-91	RES-CHIP	22	5%	1/10W
R3636	1-216-009-91	RES-CHIP	22	5%	1/10W
R3637	1-216-009-91	RES-CHIP	22	5%	1/10W
R3638	1-216-009-91	RES-CHIP	22	5%	1/10W
R3640	1-216-009-91	RES-CHIP	22	5%	1/10W
R3641	1-216-295-11	SHORT	0		
R3642	1-216-295-11	SHORT	0		
R3643	1-216-295-11	SHORT	0		
R3644	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3645	1-216-009-91	RES-CHIP	22	5%	1/10W
R3646	1-216-295-11	SHORT	0		
R3647	1-216-295-11	SHORT	0		
R3648	1-216-001-00	RES-CHIP	10	5%	1/10W
R3649	1-216-009-91	RES-CHIP	22	5%	1/10W
R3650	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3652	1-216-009-91	RES-CHIP	22	5%	1/10W
R3653	1-216-009-91	RES-CHIP	22	5%	1/10W
R3654	1-216-009-91	RES-CHIP	22	5%	1/10W
R3655	1-216-009-91	RES-CHIP	22	5%	1/10W
R3656	1-216-009-91	RES-CHIP	22	5%	1/10W
R3657	1-216-009-91	RES-CHIP	22	5%	1/10W
R3662	1-216-001-00	RES-CHIP	10	5%	1/10W
R3663	1-216-009-91	RES-CHIP	22	5%	1/10W
R3664	1-216-009-91	RES-CHIP	22	5%	1/10W
R3665	1-216-295-11	SHORT	0		
R3666	1-216-295-11	SHORT	0		
R3667	1-216-295-11	SHORT	0		
R3668	1-216-295-11	SHORT	0		
R3670	1-216-009-91	RES-CHIP	22	5%	1/10W
R3671	1-216-295-11	SHORT	0		
R3672	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3689	1-216-295-11	SHORT	0		
R3690	1-216-295-11	SHORT	0		
R3691	1-216-295-11	SHORT	0		
R3692	1-216-295-11	SHORT	0		
R3694	1-216-009-91	RES-CHIP	22	5%	1/10W
R3695	1-216-009-91	RES-CHIP	22	5%	1/10W
R3696	1-216-009-91	RES-CHIP	22	5%	1/10W
R3697	1-216-009-91	RES-CHIP	22	5%	1/10W
R3699	1-216-009-91	RES-CHIP	22	5%	1/10W
R3700	1-216-009-91	RES-CHIP	22	5%	1/10W
R3701	1-216-009-91	RES-CHIP	22	5%	1/10W
R3703	1-216-009-91	RES-CHIP	22	5%	1/10W
R3704	1-216-009-91	RES-CHIP	22	5%	1/10W
R3705	1-216-009-91	RES-CHIP	22	5%	1/10W
R3706	1-216-049-11	RES-CHIP	1K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R3707	1-216-295-11	SHORT	0		
R3708	1-216-009-91	RES-CHIP	22	5%	1/10W
R3709	1-216-009-91	RES-CHIP	22	5%	1/10W
R3710	1-216-009-91	RES-CHIP	22	5%	1/10W
R3711	1-216-009-91	RES-CHIP	22	5%	1/10W
R3712	1-216-009-91	RES-CHIP	22	5%	1/10W
R3713	1-216-009-91	RES-CHIP	22	5%	1/10W
R3714	1-216-009-91	RES-CHIP	22	5%	1/10W
R3715	1-216-009-91	RES-CHIP	22	5%	1/10W
R3716	1-216-009-91	RES-CHIP	22	5%	1/10W
R3717	1-216-009-91	RES-CHIP	22	5%	1/10W
R3718	1-216-009-91	RES-CHIP	22	5%	1/10W
R3719	1-216-009-91	RES-CHIP	22	5%	1/10W
R3720	1-216-009-91	RES-CHIP	22	5%	1/10W
R3721	1-216-009-91	RES-CHIP	22	5%	1/10W
R3722	1-216-009-91	RES-CHIP	22	5%	1/10W
R3723	1-216-009-91	RES-CHIP	22	5%	1/10W
R3724	1-216-009-91	RES-CHIP	22	5%	1/10W
R3725	1-216-009-91	RES-CHIP	22	5%	1/10W
R3726	1-216-009-91	RES-CHIP	22	5%	1/10W
R3727	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3728	1-216-009-91	RES-CHIP	22	5%	1/10W
R3729	1-216-009-91	RES-CHIP	22	5%	1/10W
R3730	1-216-009-91	RES-CHIP	22	5%	1/10W
R3731	1-216-009-91	RES-CHIP	22	5%	1/10W
R3732	1-216-009-91	RES-CHIP	22	5%	1/10W
R3733	1-216-009-91	RES-CHIP	22	5%	1/10W
R3734	1-216-009-91	RES-CHIP	22	5%	1/10W
R3744	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R3801	1-216-009-91	RES-CHIP	22	5%	1/10W
R3802	1-216-009-91	RES-CHIP	22	5%	1/10W
R3805	1-216-009-91	RES-CHIP	22	5%	1/10W
R3806	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3807	1-216-009-91	RES-CHIP	22	5%	1/10W
R3808	1-216-009-91	RES-CHIP	22	5%	1/10W
R3809	1-216-009-91	RES-CHIP	22	5%	1/10W
R3810	1-216-009-91	RES-CHIP	22	5%	1/10W
R3811	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3812	1-216-009-91	RES-CHIP	22	5%	1/10W
R3813	1-216-009-91	RES-CHIP	22	5%	1/10W
R3814	1-216-089-11	RES-CHIP	47K	5%	1/10W
R3815	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3816	1-216-009-91	RES-CHIP	22	5%	1/10W
R3817	1-216-009-91	RES-CHIP	22	5%	1/10W
R3818	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3819	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R3820	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R3821	1-216-017-91	RES-CHIP	47	5%	1/10W
R3822	1-216-017-91	RES-CHIP	47	5%	1/10W
R3823	1-216-017-91	RES-CHIP	47	5%	1/10W
R3824	1-216-017-91	RES-CHIP	47	5%	1/10W
R3826	1-216-017-91	RES-CHIP	47	5%	1/10W
R3828	1-216-017-91	RES-CHIP	47	5%	1/10W
R3830	1-216-009-91	RES-CHIP	22	5%	1/10W
R3831	1-216-295-11	SHORT	0		
R3832	1-216-017-91	RES-CHIP	47	5%	1/10W
R3833	1-216-009-91	RES-CHIP	22	5%	1/10W
R3834	1-216-017-91	RES-CHIP	47	5%	1/10W
R3835	1-216-295-11	SHORT	0		
R3836	1-216-295-11	SHORT	0		
R3837	1-216-295-11	SHORT	0		
R3838	1-216-295-11	SHORT	0		
R3839	1-216-295-11	SHORT	0		
R3840	1-216-295-11	SHORT	0		
R3841	1-216-295-11	SHORT	0		
R3842	1-216-295-11	SHORT	0		

Ref.No.	Part No.	Description	Remark
R3843	1-216-295-11	SHORT 0	
R3844	1-216-295-11	SHORT 0	
R3845	1-216-295-11	SHORT 0	
R3846	1-216-295-11	SHORT 0	
R3847	1-216-295-11	SHORT 0	
R3848	1-216-295-11	SHORT 0	
R3849	1-216-009-91	RES-CHIP 22 5% 1/10W	
R3850	1-216-009-91	RES-CHIP 22 5% 1/10W	
R3851	1-216-009-91	RES-CHIP 22 5% 1/10W	
R3852	1-216-009-91	RES-CHIP 22 5% 1/10W	
R3853	1-216-295-11	SHORT 0	
R3854	1-216-295-11	SHORT 0	
R3855	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R3856	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R3857	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R3858	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3859	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3860	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3861	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3862	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3863	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3864	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3865	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3866	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3867	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3868	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3869	1-216-624-11	METAL CHIP 75 0.5% 1/10W	
R3873	1-216-039-00	RES-CHIP 390 5% 1/10W	
R3874	1-216-039-00	RES-CHIP 390 5% 1/10W	
R3875	1-216-039-00	RES-CHIP 390 5% 1/10W	
R3876	1-216-295-11	SHORT 0	
R3877	1-216-295-11	SHORT 0	
R3878	1-216-295-11	SHORT 0	
	<##########>		
RB3001	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3002	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3003	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3004	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3005	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3006	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3007	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB3008	1-239-409-11	RES, CHIP NETWORK 47 (3216)	
RB3009	1-233-576-11	RES, CHIP NETWORK 100	
RB3010	1-233-576-11	RES, CHIP NETWORK 100	
RB3011	1-239-409-11	RES, CHIP NETWORK 47 (3216)	
RB3012	1-233-575-11	RES, CHIP NETWORK 22	
RB3013	1-233-575-11	RES, CHIP NETWORK 22	
RB3014	1-233-575-11	RES, CHIP NETWORK 22	
RB3015	1-233-575-11	RES, CHIP NETWORK 22	
RB3016	1-233-575-11	RES, CHIP NETWORK 22	
RB3017	1-233-575-11	RES, CHIP NETWORK 22	
RB3018	1-233-575-11	RES, CHIP NETWORK 22	
RB3019	1-233-575-11	RES, CHIP NETWORK 22	
RB3020	1-233-575-11	RES, CHIP NETWORK 22	
RB3021	1-233-575-11	RES, CHIP NETWORK 22	
RB3022	1-233-575-11	RES, CHIP NETWORK 22	
RB3023	1-233-575-11	RES, CHIP NETWORK 22	
RB3024	1-233-575-11	RES, CHIP NETWORK 22	
RB3025	1-233-575-11	RES, CHIP NETWORK 22	
RB3026	1-233-575-11	RES, CHIP NETWORK 22	
RB3027	1-233-575-11	RES, CHIP NETWORK 22	
RB3028	1-233-575-11	RES, CHIP NETWORK 22	
RB3029	1-233-575-11	RES, CHIP NETWORK 22	
RB3030	1-233-575-11	RES, CHIP NETWORK 22	
RB3031	1-233-575-11	RES, CHIP NETWORK 22	
RB3101	1-233-575-11	RES, CHIP NETWORK 22	
RB3102	1-233-575-11	RES, CHIP NETWORK 22	
RB3103	1-233-575-11	RES, CHIP NETWORK 22	
RB3104	1-233-575-11	RES, CHIP NETWORK 22	
RB3105	1-233-575-11	RES, CHIP NETWORK 22	
RB3106	1-233-575-11	RES, CHIP NETWORK 22	
RB3107	1-233-575-11	RES, CHIP NETWORK 22	
RB3108	1-233-575-11	RES, CHIP NETWORK 22	
RB3109	1-233-575-11	RES, CHIP NETWORK 22	
RB3110	1-233-575-11	RES, CHIP NETWORK 22	
RB3111	1-233-575-11	RES, CHIP NETWORK 22	
RB3112	1-233-575-11	RES, CHIP NETWORK 22	
RB3113	1-233-575-11	RES, CHIP NETWORK 22	
RB3114	1-233-575-11	RES, CHIP NETWORK 22	
RB3115	1-233-575-11	RES, CHIP NETWORK 22	
RB3116	1-233-575-11	RES, CHIP NETWORK 22	
RB3201	1-233-575-11	RES, CHIP NETWORK 22	
RB3202	1-233-575-11	RES, CHIP NETWORK 22	
RB3203	1-233-575-11	RES, CHIP NETWORK 22	
RB3205	1-233-575-11	RES, CHIP NETWORK 22	
RB3206	1-233-575-11	RES, CHIP NETWORK 22	
RB3301	1-233-575-11	RES, CHIP NETWORK 22	
RB3302	1-233-575-11	RES, CHIP NETWORK 22	
RB3303	1-233-575-11	RES, CHIP NETWORK 22	
RB3304	1-233-575-11	RES, CHIP NETWORK 22	
RB3401	1-233-575-11	RES, CHIP NETWORK 22	
RB3402	1-233-575-11	RES, CHIP NETWORK 22	
RB3403	1-233-575-11	RES, CHIP NETWORK 22	
RB3404	1-233-575-11	RES, CHIP NETWORK 22	
RB3501	1-233-575-11	RES, CHIP NETWORK 22	
RB3502	1-233-575-11	RES, CHIP NETWORK 22	
RB3503	1-233-575-11	RES, CHIP NETWORK 22	
RB3504	1-233-575-11	RES, CHIP NETWORK 22	
RB3601	1-233-575-11	RES, CHIP NETWORK 22	
RB3602	1-233-575-11	RES, CHIP NETWORK 22	
RB3603	1-233-575-11	RES, CHIP NETWORK 22	
RB3604	1-233-575-11	RES, CHIP NETWORK 22	
RB3805	1-233-575-11	RES, CHIP NETWORK 22	
RB3806	1-233-575-11	RES, CHIP NETWORK 22	
RB3807	1-233-575-11	RES, CHIP NETWORK 22	
RB3808	1-233-575-11	RES, CHIP NETWORK 22	
RB3809	1-233-575-11	RES, CHIP NETWORK 22	
RB3810	1-233-575-11	RES, CHIP NETWORK 22	
RB3811	1-233-575-11	RES, CHIP NETWORK 22	
RB3812	1-233-575-11	RES, CHIP NETWORK 22	
RB3813	1-233-575-11	RES, CHIP NETWORK 22	
RB3814	1-233-575-11	RES, CHIP NETWORK 22	
RB3815	1-233-575-11	RES, CHIP NETWORK 22	
RB3816	1-233-575-11	RES, CHIP NETWORK 22	
RB3817	1-233-575-11	RES, CHIP NETWORK 22	
RB3818	1-233-575-11	RES, CHIP NETWORK 22	
RB3819	1-233-575-11	RES, CHIP NETWORK 22	
RB3820	1-233-575-11	RES, CHIP NETWORK 22	
RB3821	1-233-575-11	RES, CHIP NETWORK 22	
RB3822	1-233-575-11	RES, CHIP NETWORK 22	
RB3823	1-233-575-11	RES, CHIP NETWORK 22	
RB3824	1-233-575-11	RES, CHIP NETWORK 22	
RB3825	1-233-575-11	RES, CHIP NETWORK 22	
RB3826	1-233-575-11	RES, CHIP NETWORK 22	
RB3827	1-233-575-11	RES, CHIP NETWORK 22	
RB3828	1-233-575-11	RES, CHIP NETWORK 22	

BB BC

Ref.No.	Part No.	Description			Remark
	<SWITCH>				
S3801	1-571-674-11	SWITCH, SLIDE			
	<CRYSTAL>				
X3601	1-781-232-21	OSCILLATOR, CRYSTAL			
X3602	1-781-628-21	OSCILLATOR, CRYSTAL			
**					
	* A-1136-152-A	BC COMPL *****************			
	3-179-084-01	LEVER (R), PC BOARD			
	3-179-085-01	LEVER (L), PC BOARD			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	<CAPACITOR>				
C4004	1-126-933-11	ELECT	100UF	20%	16V
C4006	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4007	1-126-961-11	ELECT	2.2UF	20%	50V
C4008	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4009	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4010	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4011	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C4012	1-164-161-11	CERAMIC CHIP	0.0022UF	10%	50V
C4013	1-126-965-11	ELECT	22UF	20%	50V
C4014	1-104-665-11	ELECT	100UF	20%	25V
C4017	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4018	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4019	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4020	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4021	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4022	1-126-961-11	ELECT	2.2UF	20%	50V
C4024	1-126-933-11	ELECT	100UF	20%	16V
C4025	1-126-961-11	ELECT	2.2UF	20%	50V
C4027	1-126-961-11	ELECT	2.2UF	20%	50V
C4029	1-126-961-11	ELECT	2.2UF	20%	50V
C4030	1-126-961-11	ELECT	2.2UF	20%	50V
C4031	1-126-933-11	ELECT	100UF	20%	16V
C4032	1-126-965-11	ELECT	22UF	20%	50V
C4033	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4034	1-126-965-11	ELECT	22UF	20%	50V
C4035	1-126-933-11	ELECT	100UF	20%	16V
C4037	1-104-665-11	ELECT	100UF	20%	25V
C4038	1-104-665-11	ELECT	100UF	20%	25V
C4040	1-104-665-11	ELECT	100UF	20%	25V
C4041	1-126-961-11	ELECT	2.2UF	20%	50V
C4042	1-126-963-11	ELECT	4.7UF	20%	50V
C4046	1-104-665-11	ELECT	100UF	20%	25V
C4047	1-126-963-11	ELECT	4.7UF	20%	50V
C4048	1-126-961-11	ELECT	2.2UF	20%	50V
C4049	1-126-967-11	ELECT	47UF	20%	50V
C4050	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4051	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4052	1-126-971-11	ELECT	470UF	20%	50V
C4053	1-126-971-11	ELECT	470UF	20%	50V
C4054	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4056	1-128-550-21	ELECT	2200UF	20%	50V
C4057	1-126-960-11	ELECT	1UF	20%	50V
C4058	1-126-960-11	ELECT	1UF	20%	50V
C4301	1-104-665-11	ELECT	100UF	20%	25V
C4302	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4303	1-104-665-11	ELECT	100UF	20%	25V

Ref.No.	Part No.	Description			Remark
C4304	1-126-933-11	ELECT	100UF	20%	16V
C4305	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4306	1-126-933-11	ELECT	100UF	20%	16V
C4307	1-126-933-11	ELECT	100UF	20%	16V
C4308	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4309	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4310	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4311	1-126-961-11	ELECT	2.2UF	20%	50V
C4312	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4313	1-126-961-11	ELECT	2.2UF	20%	50V
C4314	1-126-961-11	ELECT	2.2UF	20%	50V
C4315	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C4316	1-104-664-11	ELECT	47UF	20%	16V
C4317	1-104-664-11	ELECT	47UF	20%	16V
C4318	1-104-664-11	ELECT	47UF	20%	16V
C4319	1-126-964-11	ELECT	10UF	20%	50V
C4320	1-126-964-11	ELECT	10UF	20%	50V
C4321	1-126-964-11	ELECT	10UF	20%	50V
C4510	1-104-665-11	ELECT	100UF	20%	25V
C4511	1-104-665-11	ELECT	100UF	20%	25V
	<CONNECTOR>				
CN4001	* 1-778-393-11	PIN, PC CONNECTOR 96P			
CN4002	* 1-770-837-11	CONNECTOR, BOARD TO BOARD 30P			
CN4003	1-564-507-31	PLUG, CONNECTOR 4P			
	<DIODE>				
D4001	8-719-914-43	DIODE DAN202K-T-146			
D4002	8-719-914-43	DIODE DAN202K-T-146			
D4007	8-719-914-43	DIODE DAN202K-T-146			
D4010	8-719-914-43	DIODE DAN202K-T-146			
D4011	8-719-158-37	DIODE RD9.1SB2-T1			
D4012	8-719-158-37	DIODE RD9.1SB2-T1			
D4014	8-719-977-95	DIODE RD5.6SB2-T1			
D4015	8-719-977-95	DIODE RD5.6SB2-T1			
D4301	8-719-914-43	DIODE DAN202K-T-146			
D4302	8-719-977-95	DIODE RD5.6SB2-T1			
D4303	8-719-977-95	DIODE RD5.6SB2-T1			
D4304	8-719-977-95	DIODE RD5.6SB2-T1			
D4305	8-719-977-95	DIODE RD5.6SB2-T1			
D4306	8-719-977-95	DIODE RD5.6SB2-T1			
D4307	8-719-977-95	DIODE RD5.6SB2-T1			
D4308	8-719-988-61	DIODE 1SS355TE-17			
D4309	8-719-988-61	DIODE 1SS355TE-17			
D4310	8-719-988-61	DIODE 1SS355TE-17			
	<FILTER>				
FL4301	1-236-071-11	ENCAPSULATED COMPONENT			
FL4302	1-236-071-11	ENCAPSULATED COMPONENT			
	<IC>				
IC4002	8-759-273-12	IC TDA7315D013TR			
IC4003	8-759-701-59	IC L7809CV			
IC4004	8-759-135-80	IC LM358P			
IC4006	8-759-980-43	IC TDA2009A			
IC4301	8-759-286-17	IC PC74HC32D-T			
IC4302	8-759-286-17	IC PC74HC32D-T			
IC4303	8-759-286-17	IC PC74HC32D-T			
IC4304	8-759-285-69	IC PC74HC14D-T			
IC4305	8-759-285-55	IC PC74HC08D-T			
IC4306	8-759-633-10	IC M54544AL			
IC4307	8-759-633-10	IC M54544AL			

Ref.No.	Part No.	Description			Remark
IC4308	8-759-633-10	IC M54544AL			
IC4309	8-759-394-35	IC BA12T			
	<COIL>				
L4001	1-412-363-21	FERRITE	0UH		
L4002	1-412-363-21	FERRITE	0UH		
L4301	1-412-533-21	INDUCTOR	47UH		
L4502	1-412-533-21	INDUCTOR	47UH		
	<TRANSISTOR>				
Q4001	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q4002	8-729-027-38	TRANSISTOR DTA144EKA-T146			
Q4003	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q4005	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q4006	8-729-202-38	TRANSISTOR 2SC3326N-TE85L-B			
Q4007	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q4008	8-729-202-38	TRANSISTOR 2SC3326N-TE85L-B			
Q4009	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q4010	8-729-202-38	TRANSISTOR 2SC3326N-TE85L-B			
Q4011	8-729-202-38	TRANSISTOR 2SC3326N-TE85L-B			
	<RESISTOR>				
R4001	1-216-025-11	RES-CHIP	100	5%	1/10W
R4002	1-216-025-11	RES-CHIP	100	5%	1/10W
R4003	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4004	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4005	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4006	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4007	1-216-097-11	RES-CHIP	100K	5%	1/10W
R4008	1-216-097-11	RES-CHIP	100K	5%	1/10W
R4009	1-216-097-11	RES-CHIP	100K	5%	1/10W
R4010	1-216-097-11	RES-CHIP	100K	5%	1/10W
R4011	1-216-295-11	SHORT	0		
R4012	1-216-295-11	SHORT	0		
R4015	1-216-025-11	RES-CHIP	100	5%	1/10W
R4016	1-216-025-11	RES-CHIP	100	5%	1/10W
R4018	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R4021	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4022	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R4023	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R4024	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R4025	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4027	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4028	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4029	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4030	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4033	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4034	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4035	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4036	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4038	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R4039	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R4040	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4043	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4044	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4046	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4047	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4050	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R4051	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4052	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4053	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4054	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4055	1-216-041-00	RES-CHIP	470	5%	1/10W
R4056	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4057	1-216-015-00	RES-CHIP	39	5%	1/10W
R4058	1-216-015-00	RES-CHIP	39	5%	1/10W
R4059	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4060	1-249-385-11	CARBON	2.2	5%	1/4W
R4061	1-249-385-11	CARBON	2.2	5%	1/4W
R4062	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4063	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4064	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4065	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4066	1-216-113-00	RES-CHIP	470K	5%	1/10W
R4067	1-216-113-00	RES-CHIP	470K	5%	1/10W
R4301	1-216-025-11	RES-CHIP	100	5%	1/10W
R4302	1-216-025-11	RES-CHIP	100	5%	1/10W
R4303	1-216-025-11	RES-CHIP	100	5%	1/10W
R4304	1-216-025-11	RES-CHIP	100	5%	1/10W
R4305	1-216-025-11	RES-CHIP	100	5%	1/10W
R4306	1-216-025-11	RES-CHIP	100	5%	1/10W
R4307	1-216-025-11	RES-CHIP	100	5%	1/10W
R4308	1-216-025-11	RES-CHIP	100	5%	1/10W
R4315	1-216-295-11	SHORT	0		
R4316	1-216-295-11	SHORT	0		
R4317	1-216-295-11	SHORT	0		
R4318	1-216-295-11	SHORT	0		
R4319	1-216-295-11	SHORT	0		
R4320	1-216-295-11	SHORT	0		
R4321	1-216-117-00	RES-CHIP	680K	5%	1/10W
R4322	1-216-117-00	RES-CHIP	680K	5%	1/10W
R4323	1-216-117-00	RES-CHIP	680K	5%	1/10W
R4324	1-216-117-00	RES-CHIP	680K	5%	1/10W
R4325	1-216-117-00	RES-CHIP	680K	5%	1/10W
R4326	1-216-117-00	RES-CHIP	680K	5%	1/10W
R4333	1-216-295-11	SHORT	0		
R4334	1-216-295-11	SHORT	0		
R4335	1-216-295-11	SHORT	0		
R4336	1-216-083-00	RES-CHIP	27K	5%	1/10W
R4337	1-216-083-00	RES-CHIP	27K	5%	1/10W
R4338	1-216-083-00	RES-CHIP	27K	5%	1/10W
R4345	1-216-353-00	METAL OXIDE	2.2	5%	1W
R4346	1-216-353-00	METAL OXIDE	2.2	5%	1W
R4347	1-216-353-00	METAL OXIDE	2.2	5%	1W
	<SWITCH>				
S4001	1-570-838-11	SWITCH, SLIDE			

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Ref.No.	Part No.	Description			Remark
	* A-1275-161-A	QB COMPL ****************			
	4-396-203-01	SCREW (+B M3X12), PREVENTION			
	7-685-647-79	SCREW +BVTP	3X10 TYPE2 IT-3		
	<CAPACITOR>				
C8501	1-104-664-11	ELECT	47UF	20%	16V
C8502	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C8503	1-104-664-11	ELECT	47UF	20%	16V
C8504	1-104-664-11	ELECT	47UF	20%	16V
C8505	1-104-664-11	ELECT	47UF	20%	16V
C8506	1-109-889-11	ELECT	1UF	20%	50V
C8507	1-109-889-11	ELECT	1UF	20%	50V
C8508	1-126-786-11	ELECT	47UF	20%	16V
C8509	1-126-786-11	ELECT	47UF	20%	16V
C8510	1-126-786-11	ELECT	47UF	20%	16V

Ref.No.	Part No.	Description	Remark
C8511	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8512	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8513	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
	<CONNECTOR>		
CN8501	* 1-564-728-11	PIN, CONNECTOR (SMALL TYPE)12P	
CN8502	* 1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P	
	<DIODE>		
D8501	8-719-801-78	DIODE 1S2837-T1	
D8502	8-719-106-53	DIODE RD10M-T1B2	
D8503	8-719-106-53	DIODE RD10M-T1B2	
D8505	8-719-106-53	DIODE RD10M-T1B2	
	<JACK>		
J8502	1-565-838-11	JACK BLOCK, PIN 2P	
J8503	1-565-838-11	JACK BLOCK, PIN 2P	
	<TRANSISTOR>		
Q8501	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q8502	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q8503	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q8504	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
	<RESISTOR>		
R8501	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R8502	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R8503	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R8504	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R8505	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R8506	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R8507	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8508	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8509	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8510	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8511	1-216-025-11	RES-CHIP 100 5% 1/10W	
R8512	1-216-025-11	RES-CHIP 100 5% 1/10W	
R8513	1-216-025-11	RES-CHIP 100 5% 1/10W	
R8514	1-216-025-11	RES-CHIP 100 5% 1/10W	
R8515	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R8516	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R8517	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R8518	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8519	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8520	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8521	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8522	1-216-025-11	RES-CHIP 100 5% 1/10W	
R8523	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8524	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8525	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8526	1-216-089-11	RES-CHIP 47K 5% 1/10W	
R8527	1-216-089-11	RES-CHIP 47K 5% 1/10W	
R8528	1-216-089-11	RES-CHIP 47K 5% 1/10W	
R8529	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8530	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8531	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8532	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8533	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8534	1-216-017-91	RES-CHIP 47 5% 1/10W	
	<RELAY>		
RY8501	1-515-716-11	RELAY (TQ2-5V)	

Ref.No.	Part No.	Description	Remark
	<TERMINAL BOARD>		
TB8501	1-694-477-11	TERMINAL BOARD ASSY, I/O	

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Ref.No.	Part No.	Description	Remark
	* A-1275-177-A	QA COMPL ***********	
	1-562-579-21	RECEPTACLE, CONNECTOR 2P	
	4-396-203-01	SCREW (+B M3X12), PREVENTION	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
	<CAPACITOR>		
C8001	1-128-594-11	ELECT CHIP 1UF 20% 50V	
C8002	1-128-594-11	ELECT CHIP 1UF 20% 50V	
C8003	1-128-453-21	ELECT CHIP 47UF 20% 6.3V	
C8004	1-128-453-21	ELECT CHIP 47UF 20% 6.3V	
C8005	1-128-453-21	ELECT CHIP 47UF 20% 6.3V	
C8006	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8007	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8008	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8009	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8010	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8011	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8012	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8013	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C8014	1-128-013-11	ELECT CHIP 1UF 20% 50V	
C8015	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8016	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C8017	1-128-013-11	ELECT CHIP 1UF 20% 50V	
C8018	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8019	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8020	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8022	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8024	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C8025	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8026	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8027	1-164-346-11	CERAMIC CHIP 1UF 16V	
C8028	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C8029	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8030	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8031	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8032	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8033	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8034	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8035	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8038	1-128-594-11	ELECT CHIP 1UF 20% 50V	
C8039	1-128-594-11	ELECT CHIP 1UF 20% 50V	
C8040	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8041	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8201	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8202	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8203	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8204	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8205	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8206	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8207	1-128-453-21	ELECT CHIP 47UF 20% 6.3V	
C8208	1-128-453-21	ELECT CHIP 47UF 20% 6.3V	
C8209	1-128-453-21	ELECT CHIP 47UF 20% 6.3V	
C8210	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C8211	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8212	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8213	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C8214	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	

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Ref.No.	Part No.	Description	Remark
C8215	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C8216	1-126-204-11	ELECT CHIP 47UF 20% 16V	
C8217	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8218	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8219	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8220	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8222	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8223	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8224	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8225	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8227	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8228	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8235	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8236	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8237	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8238	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8239	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8240	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8241	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8242	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8243	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8244	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8245	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8246	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8247	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8248	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8249	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8250	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8251	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8252	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8253	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8254	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8255	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8256	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8257	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8258	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8401	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8402	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8403	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8404	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8405	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8406	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8407	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8408	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8409	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8410	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8411	1-163-217-11	CERAMIC CHIP 1PF 0.25PF 50V	
C8412	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8413	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8414	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C8415	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8416	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8417	1-128-004-11	ELECT CHIP 10UF 20% 16V	
C8418	1-128-004-11	ELECT CHIP 10UF 20% 16V	
	<CONNECTOR>		
CN8001	* 1-564-948-21	PIN, CONNECTOR 3P	
CN8002	* 1-564-948-21	PIN, CONNECTOR 3P	
CN8003	* 1-564-948-21	PIN, CONNECTOR 3P	
CN8004	* 1-564-948-21	PIN, CONNECTOR 3P	
CN8005	* 1-564-948-21	PIN, CONNECTOR 3P	
CN8201	* 1-778-393-11	PIN, PC CONNECTOR 96P	

Ref.No.	Part No.	Description	Remark
	<DIODE>		
D8001	8-719-800-76	DIODE 1SS123-T1	
D8002	8-719-800-76	DIODE 1SS123-T1	
D8003	8-719-800-76	DIODE 1SS123-T1	
D8004	8-719-800-76	DIODE 1SS123-T1	
D8005	8-719-800-76	DIODE 1SS123-T1	
D8008	8-719-800-76	DIODE 1SS123-T1	
D8009	8-719-800-76	DIODE 1SS123-T1	
D8012	8-719-801-78	DIODE 1S2837-T1	
D8013	8-719-800-76	DIODE 1SS123-T1	
D8014	8-719-800-76	DIODE 1SS123-T1	
D8015	8-719-800-76	DIODE 1SS123-T1	
D8016	8-719-800-76	DIODE 1SS123-T1	
D8201	8-719-800-76	DIODE 1SS123-T1	
D8202	8-719-800-76	DIODE 1SS123-T1	
D8203	8-719-800-76	DIODE 1SS123-T1	
D8204	8-719-801-78	DIODE 1S2837-T1	
D8205	8-719-801-78	DIODE 1S2837-T1	
D8206	8-719-801-78	DIODE 1S2837-T1	
D8207	8-719-800-76	DIODE 1SS123-T1	
D8208	8-719-800-76	DIODE 1SS123-T1	
	<FILTER>		
FL8401	1-234-158-21	FILTER, LOW PASS (50MHZ)	
FL8402	1-234-158-21	FILTER, LOW PASS (50MHZ)	
FL8403	1-234-158-21	FILTER, LOW PASS (50MHZ)	
	<IC>		
IC8001	8-759-011-65	IC MC74HC4053F-T2	
IC8002	8-759-011-64	IC MC74HC4052F-T2	
IC8003	8-759-700-78	IC TL082CPS-E20	
IC8004	8-759-144-72	IC UPC358G2-E2	
IC8005	8-759-092-82	IC SN75157PS-ELL2000	
IC8006	8-759-144-72	IC UPC358G2-E2	
IC8007	8-759-700-78	IC TL082CPS-E20	
IC8008	8-759-491-36	IC TC74VHCT244AF(EL)	
IC8009	8-759-092-82	IC SN75157PS-ELL2000	
IC8010	8-759-185-82	IC TC74VHC153F(EL)	
IC8201	8-759-335-28	IC TA78M09F(TE16L)	
IC8202	8-759-032-20	IC TC74HC32AF(EL)	
IC8203	8-759-235-19	IC TC74HC08AF(EL)	
IC8204	8-759-032-11	IC TC74HC04AF(EL)	
IC8205	8-759-533-85	IC BA05FP-E2	
IC8206	8-759-431-38	IC MAX4121CSA-TE2	
IC8207	8-759-431-38	IC MAX4121CSA-TE2	
IC8208	8-759-431-38	IC MAX4121CSA-TE2	
IC8212	8-759-542-11	IC MAX4223ESA-TG068	
IC8213	8-759-542-11	IC MAX4223ESA-TG068	
IC8214	8-759-542-11	IC MAX4223ESA-TG068	
IC8215	8-759-577-22	IC OPA658U/2K5	
IC8216	8-759-577-22	IC OPA658U/2K5	
IC8217	8-759-577-22	IC OPA658U/2K5	
IC8401	8-759-577-22	IC OPA658U/2K5	
IC8402	8-759-577-22	IC OPA658U/2K5	
IC8403	8-759-577-22	IC OPA658U/2K5	
	<JACK>		
J8001	* 1-694-163-11	TERMINAL BOARD ASSY, I/O	
J8002	1-565-639-11	JACK, PIN 1P	
J8003	1-565-641-11	JACK, PIN 1P	

QA

Ref.No.	Part No.	Description			Remark
	<COIL>				
L8001	1-412-058-11	INDUCTOR	10UH		
L8002	1-412-058-11	INDUCTOR	10UH		
L8003	1-412-058-11	INDUCTOR	10UH		
L8004	1-412-058-11	INDUCTOR	10UH		
L8005	1-403-659-11	INDUCTOR	10NH		
L8006	1-403-659-11	INDUCTOR	10NH		
L8007	1-403-659-11	INDUCTOR	10NH		
L8008	1-403-664-11	INDUCTOR	27NH		
L8009	1-403-664-11	INDUCTOR	27NH		
L8010	1-403-664-11	INDUCTOR	27NH		
L8201	1-412-533-21	INDUCTOR	47UH		
L8202	1-412-533-21	INDUCTOR	47UH		
L8203	1-412-533-21	INDUCTOR	47UH		
	<TRANSISTOR>				
Q8001	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8002	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8005	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8006	8-729-216-22	TRANSISTOR	2SA1162-YG-TE85L		
Q8007	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8008	8-729-216-22	TRANSISTOR	2SA1162-YG-TE85L		
Q8011	8-729-216-22	TRANSISTOR	2SA1162-YG-TE85L		
Q8012	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8013	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8014	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8015	8-729-216-22	TRANSISTOR	2SA1162-YG-TE85L		
Q8016	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8017	8-729-216-22	TRANSISTOR	2SA1162-YG-TE85L		
Q8018	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8019	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8020	8-729-101-07	TRANSISTOR	2SB798-T1-DLDK		
Q8201	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8202	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8203	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8204	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8205	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8206	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L		
Q8401	8-729-107-31	TRANSISTOR	2SC3545-T1T43T44		
Q8402	8-729-107-31	TRANSISTOR	2SC3545-T1T43T44		
Q8403	8-729-107-31	TRANSISTOR	2SC3545-T1T43T44		
Q8404	8-729-112-65	TRANSISTOR	2SA1462-T1Y34		
Q8405	8-729-112-65	TRANSISTOR	2SA1462-T1Y34		
Q8406	8-729-112-65	TRANSISTOR	2SA1462-T1Y34		
	<RESISTOR>				
R8001	1-220-259-11	RES-CHIP	150	5%	1/4W
R8002	1-220-259-11	RES-CHIP	150	5%	1/4W
R8003	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8004	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8005	1-220-259-11	RES-CHIP	150	5%	1/4W
R8006	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8007	1-220-259-11	RES-CHIP	150	5%	1/4W
R8008	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8009	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8010	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8011	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8012	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8013	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8014	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8015	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8016	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8017	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8018	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8019	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8020	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8021	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8022	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8023	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8024	1-216-025-11	RES-CHIP	100	5%	1/10W
R8025	1-216-025-11	RES-CHIP	100	5%	1/10W
R8027	1-216-041-00	RES-CHIP	470	5%	1/10W
R8028	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8031	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8032	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8033	1-216-095-00	RES-CHIP	82K	5%	1/10W
R8034	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8035	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8036	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8037	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8038	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8039	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8043	1-216-013-00	RES-CHIP	33	5%	1/10W
R8044	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8045	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8046	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8047	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8048	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8049	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8050	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8051	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8052	1-216-041-00	RES-CHIP	470	5%	1/10W
R8054	1-216-041-00	RES-CHIP	470	5%	1/10W
R8057	1-216-041-00	RES-CHIP	470	5%	1/10W
R8058	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R8059	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8060	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8061	1-216-041-00	RES-CHIP	470	5%	1/10W
R8062	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8063	1-216-639-11	METAL CHIP	330	0.5%	1/10W
R8064	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8065	1-216-029-00	RES-CHIP	150	5%	1/10W
R8066	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8067	1-216-013-00	RES-CHIP	33	5%	1/10W
R8068	1-216-013-00	RES-CHIP	33	5%	1/10W
R8069	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8070	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8073	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8075	1-216-013-00	RES-CHIP	33	5%	1/10W
R8076	1-216-013-00	RES-CHIP	33	5%	1/10W
R8077	1-216-013-00	RES-CHIP	33	5%	1/10W
R8079	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8080	1-216-013-00	RES-CHIP	33	5%	1/10W
R8081	1-216-025-11	RES-CHIP	100	5%	1/10W
R8082	1-216-013-00	RES-CHIP	33	5%	1/10W
R8083	1-216-013-00	RES-CHIP	33	5%	1/10W
R8085	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8086	1-216-013-00	RES-CHIP	33	5%	1/10W
R8087	1-216-025-11	RES-CHIP	100	5%	1/10W
R8088	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8089	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8092	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8093	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8094	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8095	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8096	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8097	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8098	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8099	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8100	1-216-113-00	RES-CHIP	470K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R8101	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8102	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8103	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8104	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8105	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8106	1-216-013-00	RES-CHIP	33	5%	1/10W
R8107	1-216-013-00	RES-CHIP	33	5%	1/10W
R8108	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8109	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8110	1-216-013-00	RES-CHIP	33	5%	1/10W
R8111	1-216-013-00	RES-CHIP	33	5%	1/10W
R8112	1-216-013-00	RES-CHIP	33	5%	1/10W
R8113	1-216-013-00	RES-CHIP	33	5%	1/10W
R8120	1-216-013-00	RES-CHIP	33	5%	1/10W
R8121	1-216-013-00	RES-CHIP	33	5%	1/10W
R8122	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8204	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8205	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8206	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8207	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8208	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8209	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8210	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8211	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8212	1-216-021-00	RES-CHIP	68	5%	1/10W
R8213	1-216-021-00	RES-CHIP	68	5%	1/10W
R8214	1-216-021-00	RES-CHIP	68	5%	1/10W
R8215	1-216-021-00	RES-CHIP	68	5%	1/10W
R8216	1-216-021-00	RES-CHIP	68	5%	1/10W
R8217	1-216-021-00	RES-CHIP	68	5%	1/10W
R8218	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8219	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8220	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8224	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8225	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8226	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8227	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8228	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8229	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8230	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8231	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8232	1-216-295-11	SHORT	0		
R8233	1-216-295-11	SHORT	0		
R8234	1-216-295-11	SHORT	0		
R8235	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8236	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8237	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8238	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8239	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8240	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8241	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8242	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8243	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8244	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8245	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8246	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8247	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8248	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8249	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8250	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8251	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8252	1-216-295-11	SHORT	0		
R8253	1-216-295-11	SHORT	0		
R8254	1-216-295-11	SHORT	0		
R8255	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8256	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8257	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8258	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8259	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8260	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8261	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8262	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8263	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8264	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8265	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8266	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R8267	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8268	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8269	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8270	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8271	1-216-001-00	RES-CHIP	10	5%	1/10W
R8272	1-216-001-00	RES-CHIP	10	5%	1/10W
R8273	1-216-001-00	RES-CHIP	10	5%	1/10W
R8274	1-216-017-91	RES-CHIP	47	5%	1/10W
R8275	1-216-017-91	RES-CHIP	47	5%	1/10W
R8276	1-216-017-91	RES-CHIP	47	5%	1/10W
R8277	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8278	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8279	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8280	1-216-021-00	RES-CHIP	68	5%	1/10W
R8281	1-216-021-00	RES-CHIP	68	5%	1/10W
R8282	1-216-021-00	RES-CHIP	68	5%	1/10W
R8285	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8286	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8287	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8288	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8401	1-216-017-91	RES-CHIP	47	5%	1/10W
R8402	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8403	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8404	1-216-017-91	RES-CHIP	47	5%	1/10W
R8405	1-216-017-91	RES-CHIP	47	5%	1/10W
R8406	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8407	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8408	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8409	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8410	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8411	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8412	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8416	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8417	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8418	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R8419	1-216-025-11	RES-CHIP	100	5%	1/10W
R8420	1-216-025-11	RES-CHIP	100	5%	1/10W
R8421	1-216-025-11	RES-CHIP	100	5%	1/10W
R8422	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8423	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8424	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8425	1-216-017-91	RES-CHIP	47	5%	1/10W
R8426	1-216-017-91	RES-CHIP	47	5%	1/10W
R8427	1-216-017-91	RES-CHIP	47	5%	1/10W
R8428	1-216-295-11	SHORT	0		
R8429	1-216-295-11	SHORT	0		
R8430	1-216-295-11	SHORT	0		
R8431	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8432	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8433	1-216-641-11	METAL CHIP	390	0.5%	1/10W
R8434	1-216-642-11	METAL CHIP	430	0.5%	1/10W
R8435	1-216-642-11	METAL CHIP	430	0.5%	1/10W
R8436	1-216-642-11	METAL CHIP	430	0.5%	1/10W
R8443	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8444	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8445	1-216-081-00	RES-CHIP	22K	5%	1/10W

Ref.No.	Part No.	Description			Remark
	<RELAY>				
RY8201	1-755-177-11	RELAY			
RY8202	1-755-177-11	RELAY			
RY8203	1-755-177-11	RELAY			
RY8204	1-755-177-11	RELAY			
RY8205	1-755-177-11	RELAY			
RY8206	1-755-177-11	RELAY			
RY8207	1-755-177-11	RELAY			
**					
	A-1275-198-A	QC COMPL ****************			
	1-756-157-11	BATTERY, LITHIUM			
	1-761-392-11	PWB, MOUNTTED (MICON BOARD)			
	* 1-815-229-11	CONNECTOR			
	* 2-280-622-11	SUPPORT (M3), HEXAGON			
	7-621-255-75	SCREW +P 2X12			
	7-622-205-05	NUT M2 TYPE2			
	7-627-554-27	SCREW, PRECITION +P 2X6 TYPE1			
	7-682-145-01	SCREW +P 3X4			
	<BATTERY>				
BT9001	* 1-756-156-11	HOLDER, BATTERY			
	<CAPACITOR>				
C9001	1-128-995-21	ELECT CHIP	100UF	20%	10V
C9002	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9003	1-128-995-21	ELECT CHIP	100UF	20%	10V
C9006	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C9012	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C9014	1-128-995-21	ELECT CHIP	100UF	20%	10V
C9016	1-128-995-21	ELECT CHIP	100UF	20%	10V
C9017	1-128-995-21	ELECT CHIP	100UF	20%	10V
C9018	1-128-995-21	ELECT CHIP	100UF	20%	10V
C9019	1-128-995-21	ELECT CHIP	100UF	20%	10V
C9024	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C9025	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9026	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C9027	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C9028	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C9029	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C9030	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C9031	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C9032	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C9033	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C9034	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C9035	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C9036	1-135-344-21	ELECT	270UF	20%	10V
C9037	1-135-344-21	ELECT	270UF	20%	10V
C9038	1-135-344-21	ELECT	270UF	20%	10V
C9039	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C9040	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C9041	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C9042	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C9043	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C9044	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C9045	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C9046	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C9047	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C9048	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C9049	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C9050	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C9051	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C9052	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C9053	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C9054	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C9101	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9102	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9103	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9104	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9105	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9106	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9107	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9108	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9109	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9110	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9111	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9112	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9113	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9114	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9115	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9116	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9117	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9118	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9119	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9120	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9121	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9122	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9123	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9124	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9125	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9126	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9127	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9128	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9129	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9130	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9131	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9132	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9133	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9134	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9135	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9136	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9137	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9138	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9141	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9142	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9153	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C9154	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
	<CONNECTOR>				
CN9004	1-779-420-11	CONNECTOR, BOARD TO BOARD 280P			
CN9005	1-695-453-11	CONNECTOR, BOARD TO BOARD 50P			
CN9008	* 1-815-232-11	CONNECTOR			
CN9009	* 1-815-230-11	CONNECTOR			
CN9010	* 1-785-846-11	CONNECTOR, BOARD TO BOARD 40P			
CN9011	* 1-695-320-21	PIN, CONNECTOR (1.5MM)(SMD) 2P			
	<DIODE>				
D9001	8-719-072-85	DIODE NNCD6.2MG-T2			
D9002	8-719-072-85	DIODE NNCD6.2MG-T2			
D9003	8-719-027-14	DIODE 1SS321(TE85L)			
	<FILTER>				
FL9012	1-239-899-21	FILTER, CHIP	EMI		
FL9013	1-239-899-21	FILTER, CHIP	EMI		
FL9014	1-239-899-21	FILTER, CHIP	EMI		

Ref.No.	Part No.	Description			Remark
	<IC>				
IC9002	8-759-638-12	IC R5C478II-BGA261A			
IC9005	8-759-526-02	IC MIC2563A-1BSM-T&R			
IC9008	8-759-998-49	IC MB3771PF			
IC9009	8-759-599-01	IC TC74VHCT14AFT(EL)			
IC9010	8-759-597-61	IC MIC2526-1BM-T&R			
IC9011	8-759-491-50	IC TC74VHCT244AFT(EL)			
	<COIL>				
L9001	1-414-445-11	FERRITE	0UH		
L9002	1-414-445-11	FERRITE	0UH		
L9003	1-414-445-11	FERRITE	0UH		
L9004	1-414-445-11	FERRITE	0UH		
L9005	1-469-568-21	FERRITE	0UH		
L9006	1-469-112-21	FERRITE	0UH		
L9007	1-469-112-21	FERRITE	0UH		
L9008	1-469-568-21	FERRITE	0UH		
L9009	1-469-112-21	FERRITE	0UH		
L9010	1-469-112-21	FERRITE	0UH		
L9011	1-469-112-21	FERRITE	0UH		
L9012	1-469-112-21	FERRITE	0UH		
L9013	1-469-112-21	FERRITE	0UH		
L9014	1-469-112-21	FERRITE	0UH		
L9015	1-469-112-21	FERRITE	0UH		
L9016	1-414-075-11	INDUCTOR	3.3UH		
L9017	1-414-075-11	INDUCTOR	3.3UH		
L9018	1-414-075-11	INDUCTOR	3.3UH		
L9019	1-414-075-11	INDUCTOR	3.3UH		
L9020	1-414-075-11	INDUCTOR	3.3UH		
L9021	1-414-075-11	INDUCTOR	3.3UH		
	<TRANSISTOR>				
Q9001	8-729-027-49	TRANSISTOR DTC123EKA-T146			
Q9002	8-729-027-49	TRANSISTOR DTC123EKA-T146			
	<RESISTOR>				
R9001	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9002	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9004	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9005	1-216-037-00	RES-CHIP	330	5%	1/10W
R9006	1-216-295-11	SHORT	0		
R9007	1-216-097-11	RES-CHIP	100K	5%	1/10W
R9008	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9010	1-216-025-11	RES-CHIP	100	5%	1/10W
R9011	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9012	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9013	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9014	1-216-013-00	RES-CHIP	33	5%	1/10W
R9015	1-216-089-11	RES-CHIP	47K	5%	1/10W
R9021	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9024	1-216-295-11	SHORT	0		
R9029	1-216-013-00	RES-CHIP	33	5%	1/10W
R9032	1-216-013-00	RES-CHIP	33	5%	1/10W
R9034	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9035	1-216-295-11	SHORT	0		
R9036	1-216-025-11	RES-CHIP	100	5%	1/10W
R9037	1-216-150-91	RES-CHIP	10	5%	1/8W
R9038	1-216-150-91	RES-CHIP	10	5%	1/8W
R9039	1-216-150-91	RES-CHIP	10	5%	1/8W
R9041	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9042	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9043	1-216-075-00	RES-CHIP	12K	5%	1/10W
R9044	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9045	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9047	1-216-017-91	RES-CHIP	47	5%	1/10W
R9048	1-216-017-91	RES-CHIP	47	5%	1/10W
R9049	1-216-013-00	RES-CHIP	33	5%	1/10W
R9050	1-216-013-00	RES-CHIP	33	5%	1/10W
R9051	1-216-013-00	RES-CHIP	33	5%	1/10W
R9052	1-220-256-11	RES-CHIP	75	5%	1/4W
R9053	1-220-256-11	RES-CHIP	75	5%	1/4W
R9054	1-220-256-11	RES-CHIP	75	5%	1/4W
R9055	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9060	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R9061	1-216-013-00	RES-CHIP	33	5%	1/10W
R9062	1-208-784-11	METAL CHIP	1.2K	0.5%	1/10W
R9066	1-216-295-11	SHORT	0		
R9067	1-216-295-11	SHORT	0		
	<NETWORK RESISTOR>				
RB9001	1-234-524-21	RES, CHIP	NETWORK 33		
RB9002	1-234-524-21	RES, CHIP	NETWORK 33		
RB9003	1-233-420-21	RES, CHIP	NETWORK 8.2K (3216)		
RB9004	1-233-414-11	RES, CHIP	NETWORK 4.7K (3216)		
RB9005	1-234-524-21	RES, CHIP	NETWORK 33		
RB9006	1-233-417-11	RES, CHIP	NETWORK 1.2K (3216)		
RB9008	1-234-608-21	RES, NETWORK			
RB9009	1-233-665-11	NETWORK, RES	(8 GANG) 47K		
RB9010	1-233-416-11	RES, CHIP	NETWORK 22K (3216)		
RB9011	1-233-663-91	NETWORK, RES	(8 GANG) 4.7K		
RB9012	1-233-665-11	NETWORK, RES	(8 GANG) 47K		
RB9013	1-234-524-21	RES, CHIP	NETWORK 33		
RB9014	1-234-524-21	RES, CHIP	NETWORK 33		
RB9015	1-234-524-21	RES, CHIP	NETWORK 33		
RB9016	1-234-524-21	RES, CHIP	NETWORK 33		
RB9017	1-234-524-21	RES, CHIP	NETWORK 33		
RB9018	1-234-524-21	RES, CHIP	NETWORK 33		
RB9019	1-233-663-91	NETWORK, RES	(8 GANG) 4.7K		
RB9020	1-233-663-91	NETWORK, RES	(8 GANG) 4.7K		
RB9021	1-234-524-21	RES, CHIP	NETWORK 33		
RB9022	1-233-414-11	RES, CHIP	NETWORK 4.7K (3216)		
	<SWITCH>				
SW9001	* 1-762-938-11	SWITCH, SLIDE 4P			
	<CRYSTAL>				
X9003	1-795-124-21	VIBRATOR, CRYSTAL			

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Ref.No.	Part No.	Description	Remark
	* A-1306-597-A	M COMPL ****************	
	* 1-526-659-00	SOCKET, IC (DP) 28P	
	* 1-526-662-21	SOCKET, IC (DP) 40P	
	* 1-540-212-11	SOCKET (ROTARY SWITCH)	
	4-055-636-01	SCREW (S2), M3	
	4-080-469-01	PANEL (M), REAR	
	7-682-148-01	SCREW +P 3X8	
	7-682-247-09	SCREW +K 3X6	
	7-682-548-09	SCREW +B 3X8	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
	* 8-759-545-62	IC M27C4002-10F1-SX1647	

Ref.No.	Part No.	Description			Remark
	<CAPACITOR>				
C2001	1-128-401-11	ELECT CHIP	100UF	20%	25V
C2002	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2003	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2004	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2005	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2006	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2007	1-128-401-11	ELECT CHIP	100UF	20%	25V
C2008	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2009	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2010	1-128-401-11	ELECT CHIP	100UF	20%	25V
C2011	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2012	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2013	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2014	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2015	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2016	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2017	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2018	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2019	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2020	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2023	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2024	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2026	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2027	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2028	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2029	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2030	1-128-401-11	ELECT CHIP	100UF	20%	25V
C2031	1-164-505-11	CERAMIC CHIP	2.2UF	16V	
C2201	1-107-823-11	CERAMIC CHIP	0.47UF	10%	16V
C2202	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2203	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2204	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2205	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2206	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C2207	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2208	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C2209	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C2210	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2211	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2212	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2213	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2214	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2215	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2216	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2217	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2218	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2219	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2222	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2301	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2302	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2303	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2304	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2305	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2306	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2307	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2308	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2309	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2310	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2311	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2316	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2317	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2318	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2321	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C2322	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C2323	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2324	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C2325	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2326	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2401	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2402	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2403	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2404	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2405	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2406	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2407	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2408	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2409	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2410	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2411	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2412	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2413	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2414	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2501	1-163-255-11	CERAMIC CHIP	150PF	5%	50V
C2503	1-163-255-11	CERAMIC CHIP	150PF	5%	50V
C2505	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2507	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2508	1-126-193-11	ELECT CHIP	1UF	20%	50V
C2509	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2513	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2514	1-128-401-11	ELECT CHIP	100UF	20%	25V
C2515	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2517	1-104-607-11	ELECT CHIP	47UF	20%	16V
C2518	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2519	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2520	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2521	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2522	1-104-607-11	ELECT CHIP	47UF	20%	16V
C2523	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2524	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2525	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2526	1-124-779-00	ELECT CHIP	10UF	20%	16V
C2527	1-128-401-11	ELECT CHIP	100UF	20%	25V
C2528	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2529	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2530	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2531	1-104-607-11	ELECT CHIP	47UF	20%	16V
C2532	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2601	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2605	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2606	1-104-607-11	ELECT CHIP	47UF	20%	16V
C2609	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2611	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2612	1-104-607-11	ELECT CHIP	47UF	20%	16V
C2613	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2614	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2615	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2616	1-104-607-11	ELECT CHIP	47UF	20%	16V
C2617	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2618	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2619	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2703	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2704	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2705	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2706	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2707	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2708	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2709	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2710	1-163-009-11	CERAMIC CHIP	0.001UF	10%	50V
C2711	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C2712	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C2713	1-163-231-11	CERAMIC CHIP	15PF	5%	50V

Ref.No.	Part No.	Description	Remark
C2714	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2715	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2716	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C2717	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C2718	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C2719	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C2720	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2721	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2722	1-117-681-11	ELECT CHIP 100UF 20% 16V	
C2901	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2902	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2903	1-163-231-11	CERAMIC CHIP 15PF 5% 50V	
C2904	1-163-231-11	CERAMIC CHIP 15PF 5% 50V	
C2905	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2906	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2907	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2908	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2910	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2911	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2913	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2914	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2915	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2916	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2917	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2918	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2919	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2920	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C2921	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C2922	1-126-193-11	ELECT CHIP 1UF 20% 50V	
C2924	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2926	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2927	1-126-193-11	ELECT CHIP 1UF 20% 50V	
C2929	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2930	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2932	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2933	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2934	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2935	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2936	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2937	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2938	1-163-009-11	CERAMIC CHIP 0.001UF 10% 50V	
C2939	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	

<CONNECTOR>

Ref.No.	Part No.	Description	Remark
CN2501	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P	
CN2601	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P	
CN2803	1-565-565-11	CONNECTOR, ROUND TYPE6P	
CN2804	1-565-565-11	CONNECTOR, ROUND TYPE6P	

<DIODE>

Ref.No.	Part No.	Description	Remark
D2001	8-719-914-43	DIODE DAN202K-T-146	
D2002	8-719-914-43	DIODE DAN202K-T-146	
D2003	8-719-914-43	DIODE DAN202K-T-146	
D2004	8-719-914-43	DIODE DAN202K-T-146	
D2005	8-719-914-43	DIODE DAN202K-T-146	
D2006	8-719-914-43	DIODE DAN202K-T-146	
D2007	8-719-914-43	DIODE DAN202K-T-146	
D2008	8-719-914-43	DIODE DAN202K-T-146	
D2701	8-719-977-95	DIODE RD5.6SB2-T1	
D2702	8-719-977-95	DIODE RD5.6SB2-T1	
D2703	8-719-977-95	DIODE RD5.6SB2-T1	
D2704	8-719-977-95	DIODE RD5.6SB2-T1	
D2705	8-719-977-95	DIODE RD5.6SB2-T1	
D2706	8-719-977-95	DIODE RD5.6SB2-T1	
D2707	8-719-977-95	DIODE RD5.6SB2-T1	
D2708	8-719-977-95	DIODE RD5.6SB2-T1	
D2709	8-719-158-15	DIODE RD5.6SB-T1	
D2710	8-719-158-15	DIODE RD5.6SB-T1	
D2712	8-719-158-15	DIODE RD5.6SB-T1	
D2713	8-719-058-24	DIODE RB501V-40TE-17	
D2714	8-719-058-24	DIODE RB501V-40TE-17	
D2715	8-719-800-76	DIODE MA157-TX	
D2716	8-719-800-76	DIODE MA157-TX	
D2717	8-719-800-76	DIODE MA157-TX	
D2718	8-719-800-76	DIODE MA157-TX	
D2719	8-719-158-15	DIODE RD5.6SB-T1	
D2720	8-719-158-15	DIODE RD5.6SB-T1	
D2902	8-719-914-43	DIODE DAN202K-T-146	
D2903	8-719-914-43	DIODE DAN202K-T-146	
D2904	8-719-914-43	DIODE DAN202K-T-146	
D2905	8-719-977-95	DIODE RD5.6SB2-T1	
D2906	8-719-914-43	DIODE DAN202K-T-146	
D2907	8-719-800-76	DIODE MA157-TX	
D2908	8-719-800-76	DIODE MA157-TX	
D2909	8-719-800-76	DIODE MA157-TX	
D2911	8-719-158-53	DIODE RD13SB2-T1	
D2913	8-719-914-43	DIODE DAN202K-T-146	
D2914	8-719-800-76	DIODE MA157-TX	
D2915	8-719-800-76	DIODE MA157-TX	
D2916	8-719-800-76	DIODE MA157-TX	
D2917	8-719-800-76	DIODE MA157-TX	
D2918	8-719-914-43	DIODE DAN202K-T-146	
D2919	8-719-914-43	DIODE DAN202K-T-146	
D2920	8-719-914-43	DIODE DAN202K-T-146	
D2921	8-719-914-43	DIODE DAN202K-T-146	

<FILTER>

Ref.No.	Part No.	Description	Remark
FL2001	1-239-466-21	FILTER, EMI	
FL2002	1-239-466-21	FILTER, EMI	

<IC>

Ref.No.	Part No.	Description	Remark
IC2001	8-759-186-77	IC TC74VHC541F(EL)	
IC2002	8-759-186-77	IC TC74VHC541F(EL)	
IC2003	8-759-186-77	IC TC74VHC541F(EL)	
IC2004	8-759-186-77	IC TC74VHC541F(EL)	
IC2005	8-759-491-41	IC TC74VHCT541AF(EL)	
IC2006	8-759-186-26	IC TC74VHC02F(EL)	
IC2007	8-759-186-77	IC TC74VHC541F(EL)	
IC2008	8-759-186-63	IC TC74VHC245F(EL)	
IC2010	8-759-439-28	IC TC7SH32F-TE85L	
IC2011	8-759-325-67	IC TC7SH04F(TE85R)	
IC2012	8-759-186-43	IC TC74VHC123AF(EL)	
IC2201	8-759-162-80	IC MM1170BFB	
IC2202	8-759-568-63	IC HD6437043AE65F	
IC2203	8-759-543-74	IC CY7C1021-20ZC	
IC2206	8-759-530-40	IC M48Z35Y-70PC1	
IC2207	8-759-537-83	IC MBM29F400BC-70PFTN	
IC2211	8-759-081-48	IC TC74VHC08F(EL)	
IC2212	8-759-082-55	IC TC7W00FU(TE12R)	
IC2213	8-759-325-67	IC TC7SH04F(TE85R)	
IC2214	8-759-242-68	IC TC7W32F(TE12R)	
IC2301	8-759-571-01	IC MBCG46104-120PFV	
IC2303	8-759-162-80	IC MM1170BFB	
IC2304	8-759-242-74	IC TC7W04F(TE12R)	
IC2401	8-759-174-16	IC TC74VHC244F(EL)	
IC2402	8-759-174-16	IC TC74VHC244F(EL)	
IC2403	8-759-174-16	IC TC74VHC244F(EL)	
IC2404	8-759-174-16	IC TC74VHC244F(EL)	
IC2405	8-759-174-16	IC TC74VHC244F(EL)	
IC2406	8-759-325-67	IC TC7SH04F(TE85R)	

Ref.No.	Part No.	Description	Remark
IC2407	8-759-325-67	IC TC7SH04F(TE85R)	
IC2408	8-759-272-62	IC TC74VHC32F(EL)	
IC2409	8-759-186-63	IC TC74VHC245F(EL)	
IC2410	8-759-174-16	IC TC74VHC244F(EL)	
IC2411	8-759-174-16	IC TC74VHC244F(EL)	
IC2412	8-759-174-16	IC TC74VHC244F(EL)	
IC2413	8-759-537-83	IC MBM29F400BC-70PFTN	
IC2414	8-759-335-04	IC CY7C136-55JC	
IC2501	8-759-186-43	IC TC74VHC123AF(EL)	
IC2503	8-759-186-77	IC TC74VHC541F(EL)	
IC2504	8-759-186-77	IC TC74VHC541F(EL)	
IC2505	8-759-437-35	IC MB90091APF-116	
IC2506	8-759-186-77	IC TC74VHC541F(EL)	
IC2507	8-759-325-67	IC TC7SH04F(TE85R)	
IC2508	8-759-186-63	IC TC74VHC245F(EL)	
IC2509	8-759-439-28	IC TC7SH32F-TE85L	
IC2510	8-759-533-85	IC BA05FP-E2	
IC2511	8-759-571-45	IC ISPLSI2032-80LT48-M01V1	
IC2601	* 8-759-430-23	IC UPD65806GD-064-LML	
IC2603	8-759-491-32	IC TC74VHCT04AF(EL)	
IC2604	8-759-447-77	IC TC7WH74FU(TE12R)	
IC2605	8-759-394-05	IC TC7SH08F-TE85R	
IC2607	8-759-575-94	IC TC551664BJ-15(EL)	
IC2608	8-759-575-94	IC TC551664BJ-15(EL)	
IC2611	8-759-571-44	IC ISPLSI1016E-80LT44-M02V1	
IC2703	8-752-919-83	IC CXP84648-080Q	
IC2704	8-759-697-26	IC RCV4-A1T-MASK-25	
IC2901	8-759-242-74	IC TC7W04F(TE12R)	
IC2902	8-759-479-15	IC PC16552DV	
IC2903	8-759-701-01	IC NJM2904M(TE2)	
IC2904	8-759-325-67	IC TC7SH04F(TE85R)	
IC2905	8-759-981-61	IC NJM2901M-TE2	
IC2906	8-759-566-66	IC MAX3085CSA-TG068	
IC2907	8-759-566-66	IC MAX3085CSA-TG068	
IC2909	8-759-396-84	IC MAX211ECAI-TE2	
IC2910	8-759-397-00	IC MAX489ECSD-TE2	
IC2911	8-759-180-84	IC TC7W74F(TE12R)	
IC2912	8-759-394-05	IC TC7SH08F-TE85R	
	<JACK>		
J2901	1-507-562-00	JACK	
	<COIL>		
L2001	1-409-529-41	INDUCTOR 10UH	
	<TRANSISTOR>		
Q2001	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2002	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2003	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2004	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2005	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2006	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2007	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2008	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2009	8-729-202-38	TRANSISTOR 2SC3326N-TE85L-B	
Q2010	8-729-202-38	TRANSISTOR 2SC3326N-TE85L-B	
Q2011	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2012	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q2013	8-729-202-38	TRANSISTOR 2SC3326N-TE85L-B	
Q2014	8-729-202-38	TRANSISTOR 2SC3326N-TE85L-B	
Q2015	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q2016	1-801-806-11	TRANSISTOR DTC144EKA-T146	

Ref.No.	Part No.	Description			Remark
Q2017	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2201	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q2202	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2501	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2701	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2702	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2901	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2902	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q2903	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2904	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2905	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2906	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2907	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2908	8-729-014-93	TRANSISTOR 2SB1440S-TX			
Q2909	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2910	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q2911	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q2912	8-729-900-53	TRANSISTOR DTC114EKA-T146			
Q2913	8-729-900-53	TRANSISTOR DTC114EKA-T146			
Q2914	8-729-900-53	TRANSISTOR DTC114EKA-T146			
Q2915	8-729-900-53	TRANSISTOR DTC114EKA-T146			
Q2916	8-729-900-53	TRANSISTOR DTC114EKA-T146			
Q2917	8-729-900-53	TRANSISTOR DTC114EKA-T146			
Q2918	8-729-900-53	TRANSISTOR DTC114EKA-T146			
Q2919	8-729-900-53	TRANSISTOR DTC114EKA-T146			
	<RESISTOR>				
R2001	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2002	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2003	1-216-025-11	RES-CHIP	100	5%	1/10W
R2004	1-216-025-11	RES-CHIP	100	5%	1/10W
R2005	1-216-025-11	RES-CHIP	100	5%	1/10W
R2006	1-216-295-11	SHORT	0		
R2007	1-216-295-11	SHORT	0		
R2008	1-216-025-11	RES-CHIP	100	5%	1/10W
R2010	1-216-097-11	RES-CHIP	100K	5%	1/10W
R2011	1-216-097-11	RES-CHIP	100K	5%	1/10W
R2013	1-216-025-11	RES-CHIP	100	5%	1/10W
R2014	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2015	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2016	1-216-025-11	RES-CHIP	100	5%	1/10W
R2017	1-216-025-11	RES-CHIP	100	5%	1/10W
R2018	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2019	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2020	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2021	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2026	1-216-025-11	RES-CHIP	100	5%	1/10W
R2028	1-216-025-11	RES-CHIP	100	5%	1/10W
R2029	1-216-025-11	RES-CHIP	100	5%	1/10W
R2030	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2031	1-216-025-11	RES-CHIP	100	5%	1/10W
R2032	1-216-025-11	RES-CHIP	100	5%	1/10W
R2033	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2034	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2035	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2036	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2037	1-216-025-11	RES-CHIP	100	5%	1/10W
R2038	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R2039	1-216-025-11	RES-CHIP	100	5%	1/10W
R2040	1-216-025-11	RES-CHIP	100	5%	1/10W
R2041	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2042	1-216-025-11	RES-CHIP	100	5%	1/10W
R2043	1-216-025-11	RES-CHIP	100	5%	1/10W
R2044	1-216-025-11	RES-CHIP	100	5%	1/10W
R2045	1-216-073-00	RES-CHIP	10K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R2046	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2047	1-216-025-11	RES-CHIP	100	5%	1/10W
R2049	1-216-025-11	RES-CHIP	100	5%	1/10W
R2050	1-216-025-11	RES-CHIP	100	5%	1/10W
R2051	1-216-025-11	RES-CHIP	100	5%	1/10W
R2052	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2053	1-216-025-11	RES-CHIP	100	5%	1/10W
R2054	1-216-025-11	RES-CHIP	100	5%	1/10W
R2055	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2057	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2058	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2059	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2060	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2061	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2062	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2063	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2065	1-216-025-11	RES-CHIP	100	5%	1/10W
R2066	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2067	1-216-025-11	RES-CHIP	100	5%	1/10W
R2068	1-216-025-11	RES-CHIP	100	5%	1/10W
R2069	1-216-025-11	RES-CHIP	100	5%	1/10W
R2070	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2071	1-216-025-11	RES-CHIP	100	5%	1/10W
R2072	1-216-025-11	RES-CHIP	100	5%	1/10W
R2073	1-216-025-11	RES-CHIP	100	5%	1/10W
R2074	1-216-025-11	RES-CHIP	100	5%	1/10W
R2075	1-216-025-11	RES-CHIP	100	5%	1/10W
R2076	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2078	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2081	1-216-089-11	RES-CHIP	47K	5%	1/10W
R2082	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2083	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2084	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2085	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2086	1-216-025-11	RES-CHIP	100	5%	1/10W
R2087	1-216-097-11	RES-CHIP	100K	5%	1/10W
R2088	1-216-025-11	RES-CHIP	100	5%	1/10W
R2089	1-216-025-11	RES-CHIP	100	5%	1/10W
R2090	1-216-295-11	SHORT	0		
R2091	1-216-025-11	RES-CHIP	100	5%	1/10W
R2092	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2093	1-216-025-11	RES-CHIP	100	5%	1/10W
R2094	1-216-025-11	RES-CHIP	100	5%	1/10W
R2095	1-216-025-11	RES-CHIP	100	5%	1/10W
R2096	1-216-025-11	RES-CHIP	100	5%	1/10W
R2097	1-216-025-11	RES-CHIP	100	5%	1/10W
R2098	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2099	1-216-025-11	RES-CHIP	100	5%	1/10W
R2100	1-216-025-11	RES-CHIP	100	5%	1/10W
R2101	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2102	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2103	1-216-025-11	RES-CHIP	100	5%	1/10W
R2104	1-216-025-11	RES-CHIP	100	5%	1/10W
R2105	1-216-009-91	RES-CHIP	22	5%	1/10W
R2106	1-216-025-11	RES-CHIP	100	5%	1/10W
R2107	1-216-025-11	RES-CHIP	100	5%	1/10W
R2108	1-216-025-11	RES-CHIP	100	5%	1/10W
R2109	1-216-025-11	RES-CHIP	100	5%	1/10W
R2110	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2111	1-216-025-11	RES-CHIP	100	5%	1/10W
R2112	1-216-025-11	RES-CHIP	100	5%	1/10W
R2113	1-216-025-11	RES-CHIP	100	5%	1/10W
R2114	1-216-025-11	RES-CHIP	100	5%	1/10W
R2115	1-216-025-11	RES-CHIP	100	5%	1/10W
R2116	1-216-025-11	RES-CHIP	100	5%	1/10W
R2117	1-216-025-11	RES-CHIP	100	5%	1/10W

Ref.No.	Part No.	Description			Remark
R2118	1-216-025-11	RES-CHIP	100	5%	1/10W
R2119	1-216-025-11	RES-CHIP	100	5%	1/10W
R2120	1-216-025-11	RES-CHIP	100	5%	1/10W
R2121	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2122	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2123	1-216-025-11	RES-CHIP	100	5%	1/10W
R2124	1-216-025-11	RES-CHIP	100	5%	1/10W
R2125	1-216-025-11	RES-CHIP	100	5%	1/10W
R2126	1-216-025-11	RES-CHIP	100	5%	1/10W
R2127	1-216-025-11	RES-CHIP	100	5%	1/10W
R2128	1-216-025-11	RES-CHIP	100	5%	1/10W
R2129	1-216-025-11	RES-CHIP	100	5%	1/10W
R2130	1-216-025-11	RES-CHIP	100	5%	1/10W
R2131	1-216-025-11	RES-CHIP	100	5%	1/10W
R2132	1-216-025-11	RES-CHIP	100	5%	1/10W
R2133	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2134	1-216-025-11	RES-CHIP	100	5%	1/10W
R2135	1-216-025-11	RES-CHIP	100	5%	1/10W
R2136	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2137	1-216-025-11	RES-CHIP	100	5%	1/10W
R2138	1-216-025-11	RES-CHIP	100	5%	1/10W
R2142	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2143	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2144	1-216-025-11	RES-CHIP	100	5%	1/10W
R2145	1-216-025-11	RES-CHIP	100	5%	1/10W
R2146	1-216-025-11	RES-CHIP	100	5%	1/10W
R2147	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2148	1-216-025-11	RES-CHIP	100	5%	1/10W
R2149	1-216-025-11	RES-CHIP	100	5%	1/10W
R2150	1-216-025-11	RES-CHIP	100	5%	1/10W
R2151	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2152	1-216-025-11	RES-CHIP	100	5%	1/10W
R2153	1-216-025-11	RES-CHIP	100	5%	1/10W
R2154	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2155	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2156	1-216-047-91	RES-CHIP	820	5%	1/10W
R2157	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2158	1-216-025-11	RES-CHIP	100	5%	1/10W
R2159	1-216-047-91	RES-CHIP	820	5%	1/10W
R2160	1-216-025-11	RES-CHIP	100	5%	1/10W
R2161	1-216-047-91	RES-CHIP	820	5%	1/10W
R2162	1-216-025-11	RES-CHIP	100	5%	1/10W
R2163	1-216-047-91	RES-CHIP	820	5%	1/10W
R2164	1-216-025-11	RES-CHIP	100	5%	1/10W
R2165	1-216-047-91	RES-CHIP	820	5%	1/10W
R2166	1-216-025-11	RES-CHIP	100	5%	1/10W
R2167	1-216-025-11	RES-CHIP	100	5%	1/10W
R2168	1-216-025-11	RES-CHIP	100	5%	1/10W
R2169	1-216-025-11	RES-CHIP	100	5%	1/10W
R2170	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2171	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2172	1-216-025-11	RES-CHIP	100	5%	1/10W
R2173	1-216-025-11	RES-CHIP	100	5%	1/10W
R2174	1-216-025-11	RES-CHIP	100	5%	1/10W
R2175	1-216-025-11	RES-CHIP	100	5%	1/10W
R2176	1-216-025-11	RES-CHIP	100	5%	1/10W
R2177	1-216-025-11	RES-CHIP	100	5%	1/10W
R2178	1-216-025-11	RES-CHIP	100	5%	1/10W
R2179	1-216-025-11	RES-CHIP	100	5%	1/10W
R2180	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2181	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2182	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2183	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2184	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2185	1-216-025-11	RES-CHIP	100	5%	1/10W
R2186	1-216-025-11	RES-CHIP	100	5%	1/10W

Ref.No.	Part No.	Description			Remark
R2187	1-216-025-11	RES-CHIP	100	5%	1/10W
R2188	1-216-025-11	RES-CHIP	100	5%	1/10W
R2189	1-216-295-11	SHORT	0		
R2192	1-216-025-11	RES-CHIP	100	5%	1/10W
R2193	1-216-025-11	RES-CHIP	100	5%	1/10W
R2194	1-216-025-11	RES-CHIP	100	5%	1/10W
R2195	1-216-025-11	RES-CHIP	100	5%	1/10W
R2196	1-216-025-11	RES-CHIP	100	5%	1/10W
R2197	1-216-025-11	RES-CHIP	100	5%	1/10W
R2198	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2199	1-216-025-11	RES-CHIP	100	5%	1/10W
R2200	1-216-295-11	SHORT	0		
R2201	1-216-295-11	SHORT	0		
R2202	1-216-295-11	SHORT	0		
R2203	1-216-295-11	SHORT	0		
R2206	1-216-295-11	SHORT	0		
R2207	1-216-295-11	SHORT	0		
R2208	1-216-295-11	SHORT	0		
R2209	1-216-295-11	SHORT	0		
R2210	1-216-295-11	SHORT	0		
R2211	1-216-295-11	SHORT	0		
R2212	1-216-295-11	SHORT	0		
R2213	1-216-295-11	SHORT	0		
R2214	1-216-295-11	SHORT	0		
R2215	1-216-295-11	SHORT	0		
R2216	1-216-295-11	SHORT	0		
R2217	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2218	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2219	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2220	1-216-033-00	RES-CHIP	220	5%	1/10W
R2221	1-216-025-11	RES-CHIP	100	5%	1/10W
R2222	1-216-025-11	RES-CHIP	100	5%	1/10W
R2223	1-216-025-11	RES-CHIP	100	5%	1/10W
R2224	1-216-025-11	RES-CHIP	100	5%	1/10W
R2225	1-216-025-11	RES-CHIP	100	5%	1/10W
R2229	1-216-025-11	RES-CHIP	100	5%	1/10W
R2230	1-216-025-11	RES-CHIP	100	5%	1/10W
R2231	1-216-025-11	RES-CHIP	100	5%	1/10W
R2232	1-216-025-11	RES-CHIP	100	5%	1/10W
R2233	1-216-025-11	RES-CHIP	100	5%	1/10W
R2234	1-216-025-11	RES-CHIP	100	5%	1/10W
R2238	1-216-025-11	RES-CHIP	100	5%	1/10W
R2239	1-216-025-11	RES-CHIP	100	5%	1/10W
R2240	1-216-025-11	RES-CHIP	100	5%	1/10W
R2241	1-216-025-11	RES-CHIP	100	5%	1/10W
R2242	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2243	1-216-025-11	RES-CHIP	100	5%	1/10W
R2244	1-216-025-11	RES-CHIP	100	5%	1/10W
R2246	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2247	1-216-025-11	RES-CHIP	100	5%	1/10W
R2248	1-216-033-00	RES-CHIP	220	5%	1/10W
R2250	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2252	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2253	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2254	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2255	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2256	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2261	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2264	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2265	1-216-025-11	RES-CHIP	100	5%	1/10W
R2266	1-216-025-11	RES-CHIP	100	5%	1/10W
R2267	1-216-025-11	RES-CHIP	100	5%	1/10W
R2268	1-216-025-11	RES-CHIP	100	5%	1/10W
R2269	1-216-025-11	RES-CHIP	100	5%	1/10W
R2270	1-216-025-11	RES-CHIP	100	5%	1/10W
R2271	1-216-025-11	RES-CHIP	100	5%	1/10W
R2272	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2273	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2274	1-216-295-11	SHORT	0		
R2275	1-216-025-11	RES-CHIP	100	5%	1/10W
R2276	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2278	1-216-025-11	RES-CHIP	100	5%	1/10W
R2279	1-216-025-11	RES-CHIP	100	5%	1/10W
R2280	1-216-025-11	RES-CHIP	100	5%	1/10W
R2281	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2282	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2285	1-216-295-11	SHORT	0		
R2286	1-216-295-11	SHORT	0		
R2287	1-216-295-11	SHORT	0		
R2288	1-216-295-11	SHORT	0		
R2289	1-216-025-11	RES-CHIP	100	5%	1/10W
R2290	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2291	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2292	1-216-025-11	RES-CHIP	100	5%	1/10W
R2293	1-216-295-11	SHORT	0		
R2294	1-216-025-11	RES-CHIP	100	5%	1/10W
R2295	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2296	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2297	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2301	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2302	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2303	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2304	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2305	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2306	1-216-025-11	RES-CHIP	100	5%	1/10W
R2307	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2308	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2309	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2310	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2311	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2312	1-216-025-11	RES-CHIP	100	5%	1/10W
R2313	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2314	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2315	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2316	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2317	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2318	1-216-025-11	RES-CHIP	100	5%	1/10W
R2319	1-216-025-11	RES-CHIP	100	5%	1/10W
R2320	1-216-025-11	RES-CHIP	100	5%	1/10W
R2321	1-216-025-11	RES-CHIP	100	5%	1/10W
R2322	1-216-025-11	RES-CHIP	100	5%	1/10W
R2323	1-216-025-11	RES-CHIP	100	5%	1/10W
R2324	1-216-025-11	RES-CHIP	100	5%	1/10W
R2325	1-216-025-11	RES-CHIP	100	5%	1/10W
R2326	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2327	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2331	1-216-121-11	RES-CHIP	1M	5%	1/10W
R2332	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2333	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2334	1-216-295-11	SHORT	0		
R2335	1-216-025-11	RES-CHIP	100	5%	1/10W
R2336	1-216-025-11	RES-CHIP	100	5%	1/10W
R2337	1-216-025-11	RES-CHIP	100	5%	1/10W
R2338	1-216-025-11	RES-CHIP	100	5%	1/10W
R2343	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2344	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2345	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2346	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2347	1-216-025-11	RES-CHIP	100	5%	1/10W
R2348	1-216-025-11	RES-CHIP	100	5%	1/10W
R2351	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2352	1-216-073-00	RES-CHIP	10K	5%	1/10W

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Ref.No.	Part No.	Description			Remark
R2353	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2354	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2355	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2356	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2357	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2358	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2359	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2360	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2361	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2362	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2363	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2364	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2365	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2366	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2367	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2368	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2369	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2370	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2371	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2372	1-216-097-11	RES-CHIP	100K	5%	1/10W
R2373	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2374	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2375	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2376	1-216-295-11	SHORT	0		
R2377	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2378	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2379	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2380	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2381	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2382	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2383	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2384	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2385	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2386	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2387	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2388	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2389	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2390	1-216-025-11	RES-CHIP	100	5%	1/10W
R2391	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2392	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2393	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2402	1-216-295-11	SHORT	0		
R2403	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2404	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2407	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2408	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2409	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2410	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2411	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2421	1-216-295-11	SHORT	0		
R2422	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2450	1-216-025-11	RES-CHIP	100	5%	1/10W
R2451	1-216-025-11	RES-CHIP	100	5%	1/10W
R2452	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2453	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2454	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2455	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2456	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2457	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2458	1-216-025-11	RES-CHIP	100	5%	1/10W
R2459	1-216-025-11	RES-CHIP	100	5%	1/10W
R2460	1-216-025-11	RES-CHIP	100	5%	1/10W
R2461	1-216-025-11	RES-CHIP	100	5%	1/10W
R2462	1-216-295-11	SHORT	0		
R2463	1-216-295-11	SHORT	0		
R2464	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2465	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2466	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2467	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2468	1-216-097-11	RES-CHIP	100K	5%	1/10W
R2470	1-216-295-11	SHORT	0		
R2471	1-216-295-11	SHORT	0		
R2501	1-216-025-11	RES-CHIP	100	5%	1/10W
R2502	1-216-025-11	RES-CHIP	100	5%	1/10W
R2503	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2504	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2505	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2506	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2510	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2511	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2515	1-216-025-11	RES-CHIP	100	5%	1/10W
R2517	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2519	1-216-025-11	RES-CHIP	100	5%	1/10W
R2520	1-216-025-11	RES-CHIP	100	5%	1/10W
R2521	1-216-025-11	RES-CHIP	100	5%	1/10W
R2522	1-216-025-11	RES-CHIP	100	5%	1/10W
R2523	1-216-025-11	RES-CHIP	100	5%	1/10W
R2524	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2525	1-216-025-11	RES-CHIP	100	5%	1/10W
R2526	1-216-295-11	SHORT	0		
R2528	1-216-025-11	RES-CHIP	100	5%	1/10W
R2529	1-216-295-11	SHORT	0		
R2530	1-216-029-00	RES-CHIP	150	5%	1/10W
R2532	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2534	1-216-025-11	RES-CHIP	100	5%	1/10W
R2535	1-216-025-11	RES-CHIP	100	5%	1/10W
R2536	1-216-025-11	RES-CHIP	100	5%	1/10W
R2537	1-216-025-11	RES-CHIP	100	5%	1/10W
R2539	1-216-025-11	RES-CHIP	100	5%	1/10W
R2540	1-216-025-11	RES-CHIP	100	5%	1/10W
R2541	1-216-025-11	RES-CHIP	100	5%	1/10W
R2542	1-216-025-11	RES-CHIP	100	5%	1/10W
R2543	1-216-025-11	RES-CHIP	100	5%	1/10W
R2544	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2545	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2546	1-216-025-11	RES-CHIP	100	5%	1/10W
R2547	1-216-025-11	RES-CHIP	100	5%	1/10W
R2548	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2549	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2550	1-216-295-11	SHORT	0		
R2551	1-216-295-11	SHORT	0		
R2552	1-216-025-11	RES-CHIP	100	5%	1/10W
R2557	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2558	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2559	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2560	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2561	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2562	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2563	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2564	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2565	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2566	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2567	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2568	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2569	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2570	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2571	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2572	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2573	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2574	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2575	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2576	1-216-049-11	RES-CHIP	1K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R2577	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2578	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2579	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2580	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2581	1-216-295-11	SHORT	0		
R2582	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2601	1-216-295-11	SHORT	0		
R2604	1-216-295-11	SHORT	0		
R2605	1-216-295-11	SHORT	0		
R2606	1-216-295-11	SHORT	0		
R2607	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2608	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2609	1-216-295-11	SHORT	0		
R2610	1-216-295-11	SHORT	0		
R2611	1-216-295-11	SHORT	0		
R2612	1-216-295-11	SHORT	0		
R2613	1-216-295-11	SHORT	0		
R2614	1-216-295-11	SHORT	0		
R2615	1-216-295-11	SHORT	0		
R2616	1-216-295-11	SHORT	0		
R2617	1-216-295-11	SHORT	0		
R2618	1-216-295-11	SHORT	0		
R2619	1-216-295-11	SHORT	0		
R2620	1-216-295-11	SHORT	0		
R2621	1-216-295-11	SHORT	0		
R2622	1-216-295-11	SHORT	0		
R2623	1-216-295-11	SHORT	0		
R2624	1-216-295-11	SHORT	0		
R2625	1-216-295-11	SHORT	0		
R2626	1-216-295-11	SHORT	0		
R2627	1-216-295-11	SHORT	0		
R2628	1-216-295-11	SHORT	0		
R2629	1-216-295-11	SHORT	0		
R2630	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2632	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2633	1-216-295-11	SHORT	0		
R2634	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2635	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2636	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2637	1-216-295-11	SHORT	0		
R2640	1-216-295-11	SHORT	0		
R2641	1-216-295-11	SHORT	0		
R2643	1-216-295-11	SHORT	0		
R2646	1-216-295-11	SHORT	0		
R2653	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2654	1-216-295-11	SHORT	0		
R2660	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2661	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2662	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2663	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2664	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2665	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2666	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2667	1-216-295-11	SHORT	0		
R2668	1-216-295-11	SHORT	0		
R2669	1-216-295-11	SHORT	0		
R2670	1-216-295-11	SHORT	0		
R2671	1-216-295-11	SHORT	0		
R2672	1-216-295-11	SHORT	0		
R2673	1-216-295-11	SHORT	0		
R2674	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2702	1-216-025-11	RES-CHIP	100	5%	1/10W
R2703	1-216-025-11	RES-CHIP	100	5%	1/10W
R2709	1-216-025-11	RES-CHIP	100	5%	1/10W
R2710	1-216-025-11	RES-CHIP	100	5%	1/10W
R2711	1-216-025-11	RES-CHIP	100	5%	1/10W
R2712	1-216-025-11	RES-CHIP	100	5%	1/10W
R2713	1-216-025-11	RES-CHIP	100	5%	1/10W
R2714	1-216-025-11	RES-CHIP	100	5%	1/10W
R2715	1-216-025-11	RES-CHIP	100	5%	1/10W
R2716	1-216-025-11	RES-CHIP	100	5%	1/10W
R2718	1-216-025-11	RES-CHIP	100	5%	1/10W
R2719	1-216-025-11	RES-CHIP	100	5%	1/10W
R2720	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2721	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2722	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2723	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2724	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2725	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2726	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2727	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2728	1-216-025-11	RES-CHIP	100	5%	1/10W
R2729	1-216-295-11	SHORT	0		
R2730	1-216-295-11	SHORT	0		
R2731	1-216-295-11	SHORT	0		
R2736	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2738	1-216-025-11	RES-CHIP	100	5%	1/10W
R2739	1-216-025-11	RES-CHIP	100	5%	1/10W
R2740	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R2741	1-216-121-11	RES-CHIP	1M	5%	1/10W
R2742	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R2743	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R2744	1-216-017-91	RES-CHIP	47	5%	1/10W
R2745	1-216-017-91	RES-CHIP	47	5%	1/10W
R2746	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R2747	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2749	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2750	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R2751	1-216-091-00	RES-CHIP	56K	5%	1/10W
R2752	1-216-091-00	RES-CHIP	56K	5%	1/10W
R2753	1-216-025-11	RES-CHIP	100	5%	1/10W
R2756	1-216-001-00	RES-CHIP	10	5%	1/10W
R2757	1-216-001-00	RES-CHIP	10	5%	1/10W
R2758	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2760	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2761	1-216-025-11	RES-CHIP	100	5%	1/10W
R2762	1-216-025-11	RES-CHIP	100	5%	1/10W
R2763	1-216-017-91	RES-CHIP	47	5%	1/10W
R2764	1-216-017-91	RES-CHIP	47	5%	1/10W
R2766	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2830	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2834	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2851	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2852	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2853	1-216-025-11	RES-CHIP	100	5%	1/10W
R2854	1-216-025-11	RES-CHIP	100	5%	1/10W
R2855	1-216-025-11	RES-CHIP	100	5%	1/10W
R2856	1-216-295-11	SHORT	0		
R2901	1-216-025-11	RES-CHIP	100	5%	1/10W
R2902	1-216-025-11	RES-CHIP	100	5%	1/10W
R2903	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2904	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2905	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2906	1-216-025-11	RES-CHIP	100	5%	1/10W
R2907	1-216-025-11	RES-CHIP	100	5%	1/10W
R2908	1-216-121-11	RES-CHIP	1M	5%	1/10W
R2909	1-249-377-11	CARBON	0.47	5%	1/4W
R2910	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2911	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2912	1-216-025-11	RES-CHIP	100	5%	1/10W
R2913	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2914	1-216-049-11	RES-CHIP	1K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R2915	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2916	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2917	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2918	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2919	1-216-295-11	SHORT	0		
R2920	1-216-109-00	RES-CHIP	330K	5%	1/10W
R2921	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2922	1-216-109-00	RES-CHIP	330K	5%	1/10W
R2923	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2924	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R2925	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2926	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2927	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2928	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2929	1-216-025-11	RES-CHIP	100	5%	1/10W
R2930	1-216-025-11	RES-CHIP	100	5%	1/10W
R2931	1-216-025-11	RES-CHIP	100	5%	1/10W
R2932	1-216-025-11	RES-CHIP	100	5%	1/10W
R2933	1-216-025-11	RES-CHIP	100	5%	1/10W
R2934	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2936	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2937	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R2938	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2939	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R2940	1-216-025-11	RES-CHIP	100	5%	1/10W
R2941	1-216-025-11	RES-CHIP	100	5%	1/10W
R2942	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2943	1-216-025-11	RES-CHIP	100	5%	1/10W
R2944	1-216-295-11	SHORT	0		
R2945	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2946	1-216-025-11	RES-CHIP	100	5%	1/10W
R2947	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R2948	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2949	1-216-025-11	RES-CHIP	100	5%	1/10W
R2950	1-216-025-11	RES-CHIP	100	5%	1/10W
R2951	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2952	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2953	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2954	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R2955	1-216-025-11	RES-CHIP	100	5%	1/10W
R2956	1-216-037-00	RES-CHIP	330	5%	1/10W
R2957	1-216-295-11	SHORT	0		
R2958	1-216-295-11	SHORT	0		
R2959	1-216-295-11	SHORT	0		
R2960	1-216-295-11	SHORT	0		
R2961	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2962	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R2963	1-216-025-11	RES-CHIP	100	5%	1/10W
R2964	1-216-025-11	RES-CHIP	100	5%	1/10W
R2965	1-216-083-00	RES-CHIP	27K	5%	1/10W
R2966	1-216-097-11	RES-CHIP	100K	5%	1/10W
R2967	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2968	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2969	1-216-083-00	RES-CHIP	27K	5%	1/10W
R2970	1-216-025-11	RES-CHIP	100	5%	1/10W
R2971	1-216-025-11	RES-CHIP	100	5%	1/10W
R2972	1-216-025-11	RES-CHIP	100	5%	1/10W
R2973	1-216-025-11	RES-CHIP	100	5%	1/10W
R2974	1-216-025-11	RES-CHIP	100	5%	1/10W
R2975	1-216-025-11	RES-CHIP	100	5%	1/10W
R2976	1-216-025-11	RES-CHIP	100	5%	1/10W
R2977	1-216-025-11	RES-CHIP	100	5%	1/10W
R2978	1-216-025-11	RES-CHIP	100	5%	1/10W
R2979	1-216-073-00	RES-CHIP	10K	5%	1/10W
R2980	1-216-089-11	RES-CHIP	47K	5%	1/10W
R2981	1-216-109-00	RES-CHIP	330K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R2982	1-216-025-11	RES-CHIP	100	5%	1/10W
R2983	1-216-025-11	RES-CHIP	100	5%	1/10W
R2984	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R2985	1-216-089-11	RES-CHIP	47K	5%	1/10W
R2986	1-216-295-11	SHORT	0		
R2987	1-216-295-11	SHORT	0		
R2988	1-216-295-11	SHORT	0		
R2989	1-216-295-11	SHORT	0		
R2990	1-216-295-11	SHORT	0		
R2991	1-216-295-11	SHORT	0		
R2992	1-216-295-11	SHORT	0		
R2993	1-216-295-11	SHORT	0		
R2994	1-216-295-11	SHORT	0		
R2995	1-216-295-11	SHORT	0		
R2996	1-216-295-11	SHORT	0		
	<VARIABLE RESISTOR>				
RV2901	1-238-091-11	RES, ADJ CERMET 22K			
	<RELAY>				
RY2901	1-755-384-21	RELAY			
RY2902	1-755-384-21	RELAY			
RY2903	1-755-384-21	RELAY			
RY2904	1-755-384-21	RELAY			
RY2905	1-755-384-21	RELAY			
RY2906	1-755-384-21	RELAY			
RY2907	1-755-384-21	RELAY			
	<SWITCH>				
S2702	1-572-853-11	SWITCH, ROTARY			
S2703	1-572-853-11	SWITCH, ROTARY			
S2901	1-571-818-11	SWITCH, SLIDE			
	<TERMINAL BOARD>				
TB2901	1-694-485-11	TERMINAL BOARD ASSY, I/O			
TB2902	1-694-486-11	TERMINAL BOARD ASSY, I/O			
	<CRYSTAL>				
X101	1-781-163-11	VIBRATOR, OSCILLATOR			
X2201	1-781-201-21	VIBRATOR, CRYSTAL			
X2301	1-781-204-21	VIBRATOR, CRYSTAL			
X2701	1-781-202-21	VIBRATOR, CRYSTAL			
X2901	1-781-203-21	VIBRATOR, CRYSTAL			

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Ref.No.	Part No.	Description			Remark
	* A-1311-898-A	GM MOUNT ****************			
	* 4-374-846-01	COVER, CAPACITOR, CAP TYPE			
	<CAPACITOR>				
C201	⚠1-104-708-11	FILM	0.47UF	20%	275V
C202	⚠1-113-912-11	CERAMIC	0.0047UF	20%	250V
C203	⚠1-113-912-11	CERAMIC	0.0047UF	20%	250V
C204	⚠1-107-533-11	MYLAR	1UF	20%	250V
C205	⚠1-113-912-11	CERAMIC	0.0047UF	20%	250V
C206	⚠1-113-912-11	CERAMIC	0.0047UF	20%	250V
C207	⚠1-104-708-11	FILM	0.47UF	20%	275V

Ref.No.	Part No.	Description			Remark
	<CONNECTOR>				
CN203	* 1-778-391-11	SOCKET, PC CONNECTOR 96P			
CN204	* 1-778-391-11	SOCKET, PC CONNECTOR 96P			
CN205	* 1-778-391-11	SOCKET, PC CONNECTOR 96P			
CN206	1-695-915-11	TAB (CONTACT)			
CN207	1-695-915-11	TAB (CONTACT)			
	<DIODE>				
D201	⚠8-719-911-19	DIODE 1SS119-25TD			
D202	⚠8-719-911-19	DIODE 1SS119-25TD			
	<COIL>				
L201	⚠1-409-523-21	INDUCTOR	168UH		
L202	⚠1-409-523-21	INDUCTOR	168UH		
	<RESISTOR>				
R201	⚠1-202-847-00	SOLID	560K	20%	1/2W
R202	⚠1-202-847-00	SOLID	560K	20%	1/2W
	<RELAY>				
RY201	⚠1-515-450-21	RELAY, POWER			
RY202	⚠1-515-450-21	RELAY, POWER			
	<TRANSFORMER>				
T201	⚠1-433-558-11	TRANSFORMER, LINE FILTER			
T202	⚠1-431-161-21	TRANSFORMER, LINE FILTER			
	<VARISTOR>				
VDR201	⚠ 1-801-073-41	VARISTOR ERZV14D471			
**					
	* A-1316-403-A	GB COMPL ****************			
	3-179-084-01	LEVER (R), PC BOARD			
	3-179-085-01	LEVER (L), PC BOARD			
	* 4-041-261-01	SHEET, INSULATING			
	* 4-057-443-01	HOLDER (CF), TR			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	4-382-854-51	SCREW (M3X8), P, SW (+)			
	<CAPACITOR>				
C7501	1-107-824-11	CERAMIC	220PF	5%	1KV
C7502	1-107-792-11	CERAMIC	100PF	5%	1KV
C7503	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7504	1-107-888-11	ELECT	47UF	20%	25V
C7505	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7506	1-107-914-11	ELECT	1000UF	20%	25V
C7507	1-113-903-11	CERAMIC	0.001UF	20%	250V
C7508	1-107-906-11	ELECT	10UF	20%	50V
C7509	1-115-742-11	ELECT	0.0027F	20%	10V
C7510	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7512	1-115-742-11	ELECT	0.0027F	20%	10V
C7513	1-137-484-11	MYLAR	0.47UF	10%	630V
C7514	1-107-792-11	CERAMIC	100PF	5%	1KV
C7515	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7516	1-115-802-11	ELECT	56UF	20%	35V
C7601	1-107-824-11	CERAMIC	220PF	5%	1KV
C7602	1-107-792-11	CERAMIC	100PF	5%	1KV
C7603	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7604	1-107-888-11	ELECT	47UF	20%	25V
C7605	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7606	1-115-742-11	ELECT	0.0027F	20%	10V
C7608	1-115-794-51	ELECT	0.0027F	20%	25V
C7610	1-115-786-11	ELECT	560UF	20%	25V
C7612	1-113-903-11	CERAMIC	0.001UF	20%	250V
C7614	1-107-906-11	ELECT	10UF	20%	50V
C7615	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7616	1-115-734-11	ELECT	680UF	20%	10V
C7617	1-115-790-11	ELECT	0.0015F	20%	25V
C7618	1-111-087-11	ELECT	330UF	20%	25V
C7620	1-107-792-11	CERAMIC	100PF	5%	1KV
C7621	1-130-202-00	FILM	0.022UF	5%	400V
C7801	1-107-824-11	CERAMIC	220PF	5%	1KV
C7802	1-107-792-11	CERAMIC	100PF	5%	1KV
C7803	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7804	1-107-888-11	ELECT	47UF	20%	25V
C7805	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7806	1-113-903-11	CERAMIC	0.001UF	20%	250V
C7807	1-110-994-11	ELECT	0.0068F	20%	6.3V
C7808	1-115-746-11	ELECT	0.0056F	20%	10V
C7809	1-110-994-11	ELECT	0.0068F	20%	6.3V
C7810	1-115-742-11	ELECT	0.0027F	20%	10V
C7811	1-107-906-11	ELECT	10UF	20%	50V
C7812	1-115-742-11	ELECT	0.0027F	20%	10V
C7813	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7815	1-115-742-11	ELECT	0.0027F	20%	10V
C7816	1-115-718-51	ELECT	0.0039F	20%	6.3V
C7817	1-115-737-11	ELECT	0.001F	20%	10V
C7818	1-115-339-11	CERAMIC CHIP	0.1UF	10%	50V
C7819	1-110-987-11	ELECT	0.0022F	20%	6.3V
C7820	1-115-710-31	ELECT	0.001F	20%	6.3V
C7822	1-107-792-11	CERAMIC	100PF	5%	1KV
C7823	1-130-202-00	FILM	0.022UF	5%	400V
C7824	1-115-818-51	ELECT	0.0018F	20%	35V
C7825	1-115-811-11	ELECT	560UF	20%	35V
C7826	1-110-994-11	ELECT	0.0068F	20%	6.3V
	<CONNECTOR>				
CN7501	* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7502	* 1-778-393-11	PIN, PC CONNECTOR 96P			
	<DIODE>				
D7501	8-719-059-23	DIODE P6KE200AG23			
D7502	8-719-059-23	DIODE P6KE200AG23			
D7503	8-719-059-23	DIODE P6KE200AG23			
D7504	8-719-059-23	DIODE P6KE200AG23			
D7505	8-719-947-06	DIODE RGP10JPKG23			
D7506	8-719-300-33	DIODE RGP10G			
D7507	8-719-061-49	DIODE FCH20A10			
D7508	8-719-050-21	DIODE FCQ20A04			
D7509	8-719-106-35	DIODE RD8.2M-T1B2			
D7601	8-719-059-23	DIODE P6KE200AG23			
D7602	8-719-059-23	DIODE P6KE200AG23			
D7603	8-719-059-23	DIODE P6KE200AG23			
D7604	8-719-059-23	DIODE P6KE200AG23			
D7605	8-719-947-06	DIODE RGP10JPKG23			
D7606	8-719-300-33	DIODE RGP10G			
D7608	8-719-071-90	DIODE 11DQ10-TA2B5			
D7609	8-719-510-41	DIODE D10SC9M			
D7610	8-719-050-21	DIODE FCQ20A04			
D7611	8-719-106-35	DIODE RD8.2M-T1B2			
D7801	8-719-059-23	DIODE P6KE200AG23			

Ref.No.	Part No.	Description	Remark
D7802	8-719-059-23	DIODE P6KE200AG23	
D7803	8-719-059-23	DIODE P6KE200AG23	
D7804	8-719-059-23	DIODE P6KE200AG23	
D7805	8-719-947-06	DIODE RGP10JPKG23	
D7806	8-719-300-33	DIODE RGP10G	
D7807	8-719-050-21	DIODE FCQ20A04	
D7808	8-719-050-21	DIODE FCQ20A04	
D7809	8-719-510-13	DIODE D10SC4MR	
D7812	8-719-055-30	DIODE D1FS4A-TA	
D7813	8-719-104-34	DIODE 1S2836-T1	
D7814	8-719-106-35	DIODE RD8.2M-T1B2	
D7815	8-719-071-53	DIODE F16P20FS	
	<IC>		
IC7501	8-759-490-02	IC TOP224Y-BB	
IC7502	8-759-388-23	IC TL431BCDR2	
IC7503	8-759-098-24	IC PQ30RV11	
IC7601	8-759-548-34	IC TOP227Y-BB	
IC7602	8-759-388-23	IC TL431BCDR2	
IC7801	8-759-548-33	IC TOP226Y-BB	
IC7802	8-759-388-23	IC TL431BCDR2	
IC7803	8-759-548-32	IC LT1269CT	
	<COIL>		
L7501	1-406-659-51	INDUCTOR 10UH	
L7602	1-412-525-31	INDUCTOR 10UH	
L7603	1-406-971-51	INDUCTOR 10UH	
L7604	1-406-659-51	INDUCTOR 10UH	
L7801	1-406-971-51	INDUCTOR 10UH	
L7802	1-412-525-31	INDUCTOR 10UH	
L7803	1-416-908-11	INDUCTOR 10UH	
L7804	1-406-659-51	INDUCTOR 10UH	
L7805	1-412-519-11	INDUCTOR 3.3UH	
L7806	1-412-525-31	INDUCTOR 10UH	
	<PHOTO COUPLER>		
PH7501	8-749-010-64	PHOTO COUPLER PC123FY2	
PH7502	8-749-010-64	PHOTO COUPLER PC123FY2	
PH7601	8-749-010-64	PHOTO COUPLER PC123FY2	
PH7801	8-749-010-64	PHOTO COUPLER PC123FY2	
	<IC LINK>		
PS7501	⚠1-533-597-31	LINK, IC	
PS7602	⚠1-576-124-11	LINK, IC	
PS7603	⚠1-533-790-31	LINK, IC	
PS7604	⚠1-533-595-31	LINK, IC	
PS7801	⚠1-533-282-21	LINK, IC	
PS7802	⚠1-576-288-31	RINK, IC	
PS7803	⚠1-533-595-31	LINK, IC	
PS7804	⚠1-533-596-21	LINK, IC	
PS7805	⚠1-533-282-21	LINK, IC	
	<TRANSISTOR>		
Q7501	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q7502	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q7503	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q7504	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q7801	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
	<RESISTOR>		
R7501	1-217-418-61	FUSIBLE 0.47 10% 1/2W	
R7502	1-249-377-11	CARBON 0.47 5% 1/4W	
R7503	1-260-127-11	CARBON 220K 5% 1/2W	
R7505	1-216-025-11	RES-CHIP 100 5% 1/10W	
R7506	1-260-127-11	CARBON 220K 5% 1/2W	
R7507	1-216-025-11	RES-CHIP 100 5% 1/10W	
R7509	1-216-311-00	RES-CHIP 6.8 5% 1/10W	
R7510	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R7511	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R7512	1-220-267-11	RES-CHIP 180 5% 1/2W	
R7513	1-220-221-11	RES-CHIP 100 5% 1/2W	
R7514	1-220-267-11	RES-CHIP 180 5% 1/2W	
R7515	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R7516	1-216-667-11	METAL CHIP 4.7K 0.5% 1/10W	
R7517	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R7519	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R7520	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R7521	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R7522	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R7523	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R7524	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R7525	1-260-127-11	CARBON 220K 5% 1/2W	
R7526	1-260-127-11	CARBON 220K 5% 1/2W	
R7527	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R7528	1-216-661-11	METAL CHIP 2.7K 0.5% 1/10W	
R7529	1-216-661-11	METAL CHIP 2.7K 0.5% 1/10W	
R7601	1-249-377-11	CARBON 0.47 5% 1/4W	
R7602	1-216-311-00	RES-CHIP 6.8 5% 1/10W	
R7603	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R7604	1-218-326-11	RES-CHIP 470 5% 1/2W	
R7605	1-218-326-11	RES-CHIP 470 5% 1/2W	
R7606	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R7607	1-216-673-11	METAL CHIP 8.2K 0.5% 1/10W	
R7608	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R7609	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R7610	1-215-903-11	METAL OXIDE 68K 5% 2W	
R7611	1-216-025-11	RES-CHIP 100 5% 1/10W	
R7801	1-249-377-11	CARBON 0.47 5% 1/4W	
R7802	1-216-311-00	RES-CHIP 6.8 5% 1/10W	
R7803	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R7804	1-220-221-11	RES-CHIP 100 5% 1/2W	
R7805	1-220-267-11	RES-CHIP 180 5% 1/2W	
R7806	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R7807	1-216-667-11	METAL CHIP 4.7K 0.5% 1/10W	
R7809	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R7810	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R7814	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R7815	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R7816	1-216-075-00	RES-CHIP 12K 5% 1/10W	
R7817	1-215-903-11	METAL OXIDE 68K 5% 2W	
R7818	1-216-025-11	RES-CHIP 100 5% 1/10W	
	<TRANSFORMER>		
T7501	⚠1-433-559-11	TRANSFORMER, CONVERTER (SRT)	
T7601	⚠1-433-567-11	TRANSFORMER, CONVERTER (SRT)	
T7801	⚠1-433-566-11	TRANSFORMER, CONVERTER (SRT)	

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Ref.No.	Part No.	Description	Remark
	* A-1316-555-A	GAB COMPL ****************	
	1-533-189-11	HOLDER, FUSE	
	1-543-923-11	FERRITE 0UH	
	3-179-084-01	LEVER (R), PC BOARD	
	3-179-085-01	LEVER (L), PC BOARD	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

GAB

Ref.No.	Part No.	Description			Remark
	<CAPACITOR>				
C7101	⚠1-104-708-11	FILM	0.47UF	20%	275V
C7102	1-137-477-11	MYLAR	0.47UF	10%	400V
C7103	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7104	1-104-330-11	CERAMIC	470PF	10%	1KV
C7105	1-104-330-11	CERAMIC	470PF	10%	1KV
C7107	1-117-751-11	ELECT(BLOCK)	220UF	20%	450V
C7108	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7109	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7110	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7151	⚠1-104-708-11	FILM	0.47UF	20%	275V
C7152	1-137-477-11	MYLAR	0.47UF	10%	400V
C7153	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7154	1-104-330-11	CERAMIC	470PF	10%	1KV
C7155	1-104-330-11	CERAMIC	470PF	10%	1KV
C7157	1-117-751-11	ELECT(BLOCK)	220UF	20%	450V
C7158	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7159	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7160	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7201	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7202	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C7203	1-164-492-11	CERAMIC CHIP	0.15UF	10%	16V
C7204	1-107-889-11	ELECT	220UF	20%	25V
C7205	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C7206	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C7207	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C7208	1-164-492-11	CERAMIC CHIP	0.15UF	10%	16V
	<CONNECTOR>				
CN7101	* 1-778-393-11	PIN, PC CONNECTOR 96P			
CN7102	* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7103	* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
CN7152	* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7153	* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
CN7201	* 1-774-246-11	CONNECTOR, BOARD TO BOARD 10P			
	<DIODE>				
D7101	8-719-066-75	DIODE D6SB80			
D7102	8-719-066-76	DIODE TF861S			
D7103	8-719-055-30	DIODE D1FS4A-TA			
D7104	8-719-055-30	DIODE D1FS4A-TA			
D7105	8-719-055-30	DIODE D1FS4A-TA			
D7106	8-719-055-30	DIODE D1FS4A-TA			
D7107	8-719-060-06	DIODE FSF10A60			
D7108	1-803-136-11	VARISTOR ZP2600			
D7109	1-803-136-11	VARISTOR ZP2600			
D7151	⚠8-719-066-75	DIODE D6SB80			
D7152	8-719-066-76	DIODE TF861S			
D7153	8-719-055-30	DIODE D1FS4A-TA			
D7154	8-719-055-30	DIODE D1FS4A-TA			
D7155	8-719-055-30	DIODE D1FS4A-TA			
D7156	8-719-055-30	DIODE D1FS4A-TA			
D7157	8-719-060-06	DIODE FSF10A60			
D7158	1-803-136-11	VARISTOR ZP2600			
D7159	1-803-136-11	VARISTOR ZP2600			
	<FUSE>				
F7101	⚠1-576-232-11	FUSE (H.B.C.) 5A/250V			
F7151	⚠1-576-232-11	FUSE (H.B.C.) 5A/250V			

Ref.No.	Part No.	Description			Remark
	<IC>				
IC7201	8-759-485-61	IC FA5331P			
	<COIL>				
L7101	1-416-907-11	INDUCTOR	750UH		
L7151	1-416-907-11	INDUCTOR	750UH		
	<TRANSISTOR>				
Q7101	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7102	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7151	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7152	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7201	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
	<RESISTOR>				
R7101	1-219-363-11	FUSIBLE	5.6	5%	5W
R7102	1-219-363-11	FUSIBLE	5.6	5%	5W
R7104	1-217-156-00	RESISTOR	0.22	10%	5W
R7105	1-215-870-11	METAL OXIDE	1.5K	5%	1W
R7106	1-216-487-11	METAL OXIDE	12K	5%	3W
R7107	1-216-487-11	METAL OXIDE	12K	5%	3W
R7108	1-216-003-11	RES-CHIP	12	5%	1/10W
R7109	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7110	1-216-003-11	RES-CHIP	12	5%	1/10W
R7111	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7112	1-216-487-11	METAL OXIDE	12K	5%	3W
R7114	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7115	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7116	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7117	1-220-337-11	RES-CHIP	270K	5%	1/2W
R7118	1-249-385-11	CARBON	2.2	5%	1/4W
R7119	1-249-385-11	CARBON	2.2	5%	1/4W
R7151	1-219-363-11	FUSIBLE	5.6	5%	5W
R7152	1-219-363-11	FUSIBLE	5.6	5%	5W
R7154	1-217-156-00	RESISTOR	0.22	10%	5W
R7155	1-215-870-11	METAL OXIDE	1.5K	5%	1W
R7156	1-216-487-11	METAL OXIDE	12K	5%	3W
R7157	1-216-487-11	METAL OXIDE	12K	5%	3W
R7158	1-216-003-11	RES-CHIP	12	5%	1/10W
R7159	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7160	1-216-003-11	RES-CHIP	12	5%	1/10W
R7161	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7162	1-249-385-11	CARBON	2.2	5%	1/4W
R7163	1-216-487-11	METAL OXIDE	12K	5%	3W
R7164	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7165	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7166	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7167	1-220-337-11	RES-CHIP	270K	5%	1/2W
R7168	1-249-385-11	CARBON	2.2	5%	1/4W
R7201	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7203	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R7204	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R7205	1-216-005-00	RES-CHIP	15	5%	1/10W
R7207	1-216-025-11	RES-CHIP	100	5%	1/10W
R7208	1-216-089-11	RES-CHIP	47K	5%	1/10W
R7211	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7212	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7213	1-220-337-11	RES-CHIP	270K	5%	1/2W
R7214	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R7215	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R7216	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R7217	1-216-073-00	RES-CHIP	10K	5%	1/10W
R7218	1-216-101-00	RES-CHIP	150K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R7219	1-216-085-00	RES-CHIP	33K	5%	1/10W
R7220	1-216-629-11	METAL CHIP	120	0.5%	1/10W
R7222	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7223	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7224	1-216-089-11	RES-CHIP	47K	5%	1/10W

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Ref.No.	Part No.	Description			Remark
	* A-1316-556-A	GAA COMPL *****************			
	1-533-189-11	HOLDER, FUSE			
	1-543-923-11	FERRITE	0UH		
	3-179-084-01	LEVER (R), PC BOARD			
	3-179-085-01	LEVER (L), PC BOARD			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	4-382-854-51	SCREW (M3X8), P, SW (+)			
	<CAPACITOR>				
C7001	⚠1-104-708-11	FILM	0.47UF	20%	275V
C7002	1-137-477-11	MYLAR	0.47UF	10%	400V
C7003	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7004	1-104-330-11	CERAMIC	470PF	10%	1KV
C7005	1-104-330-11	CERAMIC	470PF	10%	1KV
C7007	1-117-751-11	ELECT(BLOCK)	220UF	20%	450V
C7008	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7009	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7010	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7031	⚠1-104-708-11	FILM	0.47UF	20%	275V
C7032	1-137-477-11	MYLAR	0.47UF	10%	400V
C7033	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7034	1-104-330-11	CERAMIC	470PF	10%	1KV
C7035	1-104-330-11	CERAMIC	470PF	10%	1KV
C7037	1-117-751-11	ELECT(BLOCK)	220UF	20%	450V
C7038	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7039	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7040	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7061	1-104-708-11	FILM	0.47UF	20%	275V
C7062	1-137-477-11	MYLAR	0.47UF	10%	400V
C7063	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7064	1-104-330-11	CERAMIC	470PF	10%	1KV
C7065	1-104-330-11	CERAMIC	470PF	10%	1KV
C7067	1-117-751-11	ELECT(BLOCK)	220UF	20%	450V
C7068	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7069	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7070	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7201	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C7202	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C7203	1-164-492-11	CERAMIC CHIP	0.15UF	10%	16V
C7204	1-107-889-11	ELECT	220UF	20%	25V
C7205	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C7206	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C7207	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C7208	1-164-492-11	CERAMIC CHIP	0.15UF	10%	16V
	<CONNECTOR>				
CN7001	*1-778-393-11	PIN, PC CONNECTOR 96P			
CN7002	*1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7003	*1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
CN7004	*1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7032	* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7033	* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
CN7062	* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN7063	* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
CN7201	* 1-774-246-11	CONNECTOR, BOARD TO BOARD 10P			

Ref.No.	Part No.	Description			Remark
	<DIODE>				
D7001	⚠8-719-066-75	DIODE D6SB80			
D7002	8-719-066-76	DIODE TF861S			
D7003	8-719-055-30	DIODE D1FS4A-TA			
D7004	8-719-055-30	DIODE D1FS4A-TA			
D7005	8-719-055-30	DIODE D1FS4A-TA			
D7006	8-719-055-30	DIODE D1FS4A-TA			
D7007	8-719-060-06	DIODE FSF10A60			
D7008	1-803-136-11	VARISTOR ZP2600			
D7009	1-803-136-11	VARISTOR ZP2600			
D7031	⚠8-719-066-75	DIODE D6SB80			
D7032	8-719-066-76	DIODE TF861S			
D7033	8-719-055-30	DIODE D1FS4A-TA			
D7034	8-719-055-30	DIODE D1FS4A-TA			
D7035	8-719-055-30	DIODE D1FS4A-TA			
D7036	8-719-055-30	DIODE D1FS4A-TA			
D7037	8-719-060-06	DIODE FSF10A60			
D7038	1-803-136-11	VARISTOR ZP2600			
D7039	1-803-136-11	VARISTOR ZP2600			
D7061	⚠8-719-066-75	DIODE D6SB80			
D7062	8-719-066-76	DIODE TF861S			
D7063	8-719-055-30	DIODE D1FS4A-TA			
D7064	8-719-055-30	DIODE D1FS4A-TA			
D7065	8-719-055-30	DIODE D1FS4A-TA			
D7066	8-719-055-30	DIODE D1FS4A-TA			
D7067	8-719-060-06	DIODE FSF10A60			
D7068	1-803-136-11	VARISTOR ZP2600			
D7069	1-803-136-11	VARISTOR ZP2600			
	<FUSE>				
F7001	1-576-232-11	FUSE (H.B.C.) 5A/250V			
F7031	1-576-232-11	FUSE (H.B.C.) 5A/250V			
F7061	1-576-232-11	FUSE (H.B.C.) 5A/250V			
	<IC>				
IC7201	8-759-485-61	IC FA5331P			
	<COIL>				
L7001	⚠1-416-907-11	INDUCTOR	750UH		
L7031	⚠1-416-907-11	INDUCTOR	750UH		
L7061	⚠1-416-907-11	INDUCTOR	750UH		
	<TRANSISTOR>				
Q7001	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7002	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7031	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7032	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7061	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7062	8-729-043-15	TRANSISTOR 2SK3013F-02			
Q7201	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
	<RESISTOR>				
R7001	1-219-363-11	FUSIBLE	5.6	5%	5W
R7002	1-219-363-11	FUSIBLE	5.6	5%	5W
R7004	1-217-156-00	RESISTOR	0.22	10%	5W
R7005	1-215-870-11	METAL OXIDE	1.5K	5%	1W
R7006	1-216-487-11	METAL OXIDE	12K	5%	3W
R7007	1-216-487-11	METAL OXIDE	12K	5%	3W
R7008	1-216-003-11	RES-CHIP	12	5%	1/10W
R7009	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7010	1-216-003-11	RES-CHIP	12	5%	1/10W

Ref.No.	Part No.	Description			Remark
R7011	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7013	1-216-487-11	METAL OXIDE	12K	5%	3W
R7014	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7015	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7016	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7017	1-220-337-11	RES-CHIP	270K	5%	1/2W
R7031	1-219-363-11	FUSIBLE	5.6	5%	5W
R7032	1-219-363-11	FUSIBLE	5.6	5%	5W
R7034	1-217-156-00	RESISTOR	0.22	10%	5W
R7035	1-215-870-11	METAL OXIDE	1.5K	5%	1W
R7036	1-216-487-11	METAL OXIDE	12K	5%	3W
R7037	1-216-487-11	METAL OXIDE	12K	5%	3W
R7038	1-216-003-11	RES-CHIP	12	5%	1/10W
R7039	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7040	1-216-003-11	RES-CHIP	12	5%	1/10W
R7041	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7042	1-249-385-11	CARBON	2.2	5%	1/4W
R7043	1-216-487-11	METAL OXIDE	12K	5%	3W
R7044	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7045	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7046	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7047	1-220-337-11	RES-CHIP	270K	5%	1/2W
R7048	1-249-385-11	CARBON	2.2	5%	1/4W
R7061	1-219-363-11	FUSIBLE	5.6	5%	5W
R7062	1-219-363-11	FUSIBLE	5.6	5%	5W
R7064	1-217-156-00	RESISTOR	0.22	10%	5W
R7065	1-215-870-11	METAL OXIDE	1.5K	5%	1W
R7066	1-216-487-11	METAL OXIDE	12K	5%	3W
R7067	1-216-487-11	METAL OXIDE	12K	5%	3W
R7068	1-216-003-11	RES-CHIP	12	5%	1/10W
R7069	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7070	1-216-003-11	RES-CHIP	12	5%	1/10W
R7071	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7072	1-249-385-11	CARBON	2.2	5%	1/4W
R7073	1-216-487-11	METAL OXIDE	12K	5%	3W
R7074	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7075	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7076	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7077	1-220-337-11	RES-CHIP	270K	5%	1/2W
R7078	1-249-385-11	CARBON	2.2	5%	1/4W
R7201	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7203	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R7204	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R7205	1-216-005-00	RES-CHIP	15	5%	1/10W
R7207	1-216-025-11	RES-CHIP	100	5%	1/10W
R7208	1-216-089-11	RES-CHIP	47K	5%	1/10W
R7211	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7212	1-220-335-11	RES-CHIP	180K	5%	1/2W
R7213	1-220-337-11	RES-CHIP	270K	5%	1/2W
R7214	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R7215	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R7216	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R7217	1-216-073-00	RES-CHIP	10K	5%	1/10W
R7218	1-216-101-00	RES-CHIP	150K	5%	1/10W
R7219	1-216-085-00	RES-CHIP	33K	5%	1/10W
R7220	1-216-629-11	METAL CHIP	120	0.5%	1/10W
R7222	1-220-336-11	RES-CHIP	220K	5%	1/2W
R7223	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7224	1-216-089-11	RES-CHIP	47K	5%	1/10W

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Ref.No.	Part No.	Description			Remark
	* A-1335-135-A	C COMPL ****************			
	<CAPACITOR>				
C5003	1-128-401-11	ELECT CHIP	100UF	20%	25V
C5004	1-128-401-11	ELECT CHIP	100UF	20%	25V
C5005	1-128-401-11	ELECT CHIP	100UF	20%	25V
C5006	1-128-401-11	ELECT CHIP	100UF	20%	25V
C5007	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5008	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5009	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5010	1-128-400-11	ELECT CHIP	47UF	20%	25V
C5012	1-128-400-11	ELECT CHIP	47UF	20%	25V
C5013	1-128-400-11	ELECT CHIP	47UF	20%	25V
C5014	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5015	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5016	1-128-401-11	ELECT CHIP	100UF	20%	25V
C5017	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
C5019	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5020	1-128-401-11	ELECT CHIP	100UF	20%	25V
C5021	1-127-532-11	ELECT	47UF	20%	20V
C5023	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5024	1-128-401-11	ELECT CHIP	100UF	20%	25V
C5025	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5026	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5027	1-128-397-21	ELECT CHIP	100UF	20%	16V
C5028	1-164-346-11	CERAMIC CHIP	1UF	16V	
C5031	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5032	1-164-182-11	CERAMIC CHIP	0.0033UF	10%	50V
C5033	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5034	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5035	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5037	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5038	1-128-397-21	ELECT CHIP	100UF	20%	16V
C5039	1-113-578-11	ELECT	68UF	20%	10V
C5040	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5041	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5042	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5043	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5044	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5045	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C5046	1-128-400-11	ELECT CHIP	47UF	20%	25V
C5201	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5202	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5203	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5204	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5205	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5206	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5207	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5208	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5209	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5210	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5211	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5212	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5213	1-128-400-11	ELECT CHIP	47UF	20%	25V
C5214	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5215	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5216	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5217	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C5218	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5221	1-109-994-11	CERAMIC CHIP	2.2UF	10%	10V
C5222	1-109-994-11	CERAMIC CHIP	2.2UF	10%	10V
C5223	1-109-994-11	CERAMIC CHIP	2.2UF	10%	10V
C5224	1-124-779-00	ELECT CHIP	10UF	20%	16V
C5225	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V

Ref.No.	Part No.	Description				Remark
C5226	1-109-994-11	CERAMIC CHIP	2.2UF	10%	10V	
C5227	1-109-994-11	CERAMIC CHIP	2.2UF	10%	10V	
C5228	1-109-994-11	CERAMIC CHIP	2.2UF	10%	10V	
C5229	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5232	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5233	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5234	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5235	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5236	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5237	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5238	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5401	1-128-401-11	ELECT CHIP	100UF	20%	25V	
C5403	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5404	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5405	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5406	1-128-397-21	ELECT CHIP	100UF	20%	16V	
C5407	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5408	1-128-397-21	ELECT CHIP	100UF	20%	16V	
C5409	1-128-401-11	ELECT CHIP	100UF	20%	25V	
C5410	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5412	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5414	1-128-397-21	ELECT CHIP	100UF	20%	16V	
C5430	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5432	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5601	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5604	1-126-204-11	ELECT CHIP	47UF	20%	16V	
C5606	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V	
C5612	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5613	1-126-204-11	ELECT CHIP	47UF	20%	16V	
C5617	1-126-204-11	ELECT CHIP	47UF	20%	16V	
C5618	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V	
C5620	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5621	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5623	1-128-400-11	ELECT CHIP	47UF	20%	25V	
C5624	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5625	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5633	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5634	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5636	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5637	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5638	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5639	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V	
C5641	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V	
C5642	1-126-206-11	ELECT CHIP	100UF	20%	6.3V	
C5643	1-126-206-11	ELECT CHIP	100UF	20%	6.3V	
C5644	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5645	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5646	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5647	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5648	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5649	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5650	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5651	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5656	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5657	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5658	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5659	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5660	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5661	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5662	1-117-681-11	ELECT CHIP	100UF	20%	16V	
C5663	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5664	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5665	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5666	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5667	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5668	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5669	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5670	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5671	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5801	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5802	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5803	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5804	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5805	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5806	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V	
C5807	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V	
C5808	1-126-206-11	ELECT CHIP	100UF	20%	6.3V	
C5809	1-126-206-11	ELECT CHIP	100UF	20%	6.3V	
C5810	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5811	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5812	1-126-204-11	ELECT CHIP	47UF	20%	16V	
C5813	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5814	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5815	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5816	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5819	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5820	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5821	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5822	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5823	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5824	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5825	1-117-681-11	ELECT CHIP	100UF	20%	16V	
C5826	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5827	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5828	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5829	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5830	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5831	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5832	1-124-779-00	ELECT CHIP	10UF	20%	16V	
C5833	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5834	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5835	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V	
C5836	1-126-206-11	ELECT CHIP	100UF	20%	6.3V	
C5837	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5838	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V	
C5839	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5840	1-126-206-11	ELECT CHIP	100UF	20%	6.3V	
C5841	1-126-204-11	ELECT CHIP	47UF	20%	16V	
C5842	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5843	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5844	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5845	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5846	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5849	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5850	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5851	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5852	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5853	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5854	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5855	1-117-681-11	ELECT CHIP	100UF	20%	16V	
C5856	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5857	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5858	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5859	1-126-200-11	ELECT CHIP	10UF	20%	35V	
C5860	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5861	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5862	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5863	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
C5864	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V	
	<CONNECTOR>					
CN5001*	1-778-232-11	CONNECTOR, BOARD TO BOARD 30P				

Ref.No.	Part No.	Description	Remark
CN5002	* 1-778-232-11	CONNECTOR, BOARD TO BOARD 30P	
CN5003	1-564-505-41	PLUG, CONNECTOR 2P	
CN5004	1-564-509-11	PLUG, CONNECTOR 6P	
CN5005	1-564-505-11	PLUG, CONNECTOR 2P	
CN5007	1-564-506-11	PLUG, CONNECTOR 3P	
CN5008	1-564-506-11	PLUG, CONNECTOR 3P	
CN5009	1-564-506-11	PLUG, CONNECTOR 3P	
CN5401	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P	
CN5601	* 1-784-277-21	CONNECTOR, FFC/FPC 32P	
CN5801	* 1-784-277-21	CONNECTOR, FFC/FPC 32P	
CN5802	* 1-784-277-21	CONNECTOR, FFC/FPC 32P	
	<DIODE>		
D5001	8-719-977-95	DIODE RD5.6SB2-T1	
D5002	8-719-055-30	DIODE D1FS4A-TA	
D5003	8-719-055-30	DIODE D1FS4A-TA	
D5004	8-719-914-43	DIODE DAN202K-T-146	
D5005	8-719-914-43	DIODE DAN202K-T-146	
D5006	8-719-914-43	DIODE DAN202K-T-146	
	<FERRITE BEAD>		
FB5001	1-469-365-21	FERRITE 0UH	
FB5401	1-414-760-21	INDUCTOR 0UH	
FB5601	1-414-227-11	INDUCTOR 0UH	
FB5604	1-414-760-21	INDUCTOR 0UH	
FB5605	1-414-760-21	INDUCTOR 0UH	
FB5606	1-414-760-21	INDUCTOR 0UH	
FB5608	1-414-760-21	INDUCTOR 0UH	
FB5609	1-414-760-21	INDUCTOR 0UH	
FB5610	1-414-760-21	INDUCTOR 0UH	
FB5611	1-414-760-21	INDUCTOR 0UH	
FB5801	1-414-227-11	INDUCTOR 0UH	
FB5804	1-414-760-21	INDUCTOR 0UH	
FB5805	1-414-760-21	INDUCTOR 0UH	
FB5806	1-414-760-21	INDUCTOR 0UH	
FB5808	1-414-760-21	INDUCTOR 0UH	
FB5809	1-414-760-21	INDUCTOR 0UH	
FB5810	1-414-760-21	INDUCTOR 0UH	
FB5811	1-414-760-21	INDUCTOR 0UH	
FB5812	1-414-227-11	INDUCTOR 0UH	
FB5815	1-414-760-21	INDUCTOR 0UH	
FB5816	1-414-760-21	INDUCTOR 0UH	
FB5817	1-414-760-21	INDUCTOR 0UH	
FB5819	1-414-760-21	INDUCTOR 0UH	
FB5820	1-414-760-21	INDUCTOR 0UH	
FB5821	1-414-760-21	INDUCTOR 0UH	
FB5822	1-414-760-21	INDUCTOR 0UH	
	<FILTER>		
FL5001	1-239-466-21	FILTER, EMI	
FL5002	1-239-466-21	FILTER, EMI	
FL5003	1-239-466-21	FILTER, EMI	
FL5004	1-239-466-21	FILTER, EMI	
FL5005	1-239-466-21	FILTER, EMI	
	<IC>		
IC5001	8-759-157-17	IC PQ05SZ1U	
IC5002	8-759-388-31	IC PQ20VZ1U	
IC5003	8-759-259-77	IC PQ20VZ5U	
IC5004	8-759-491-36	IC TC74VHCT244AF(EL)	
IC5005	8-759-084-79	IC TC7S14F(TE85R)	
IC5007	8-759-637-94	IC LT1376IS#TR	
IC5008	8-759-599-23	IC ADG736BRM-REEL	
IC5009	8-759-599-23	IC ADG736BRM-REEL	
IC5010	8-759-599-23	IC ADG736BRM-REEL	
IC5011	8-759-096-87	IC TC7WU04FU(TE12R)	
IC5013	8-759-157-17	IC PQ05SZ1U	
IC5201	8-759-599-25	IC MAX4117ESA-TG068	
IC5202	8-759-599-25	IC MAX4117ESA-TG068	
IC5203	8-759-599-25	IC MAX4117ESA-TG068	
IC5204	8-759-381-53	IC UPC814G2-E2	
IC5205	8-759-381-53	IC UPC814G2-E2	
IC5206	8-759-381-53	IC UPC814G2-E2	
IC5207	8-759-544-55	IC MAX4066CEE-TE2	
IC5208	8-759-530-57	IC TLV431ACDBV2	
IC5209	8-759-381-53	IC UPC814G2-E2	
IC5210	8-759-381-53	IC UPC814G2-E2	
IC5211	8-759-381-53	IC UPC814G2-E2	
IC5402	8-759-437-13	IC MC10H350P	
IC5403	* 8-759-830-09	IC ISPLSI1032E-100LT-C01V4	
IC5405	8-759-186-60	IC TC74VHC240F(EL)	
IC5406	8-759-186-60	IC TC74VHC240F(EL)	
IC5601	8-759-081-48	IC TC74VHC08F(EL)	
IC5602	8-759-470-51	IC MB88141APFV-ER	
IC5603	8-759-544-55	IC MAX4066CEE-TE2	
IC5604	8-759-381-53	IC UPC814G2-E2	
IC5605	8-759-482-47	IC M62399FP-TE2	
IC5606	8-759-544-55	IC MAX4066CEE-TE2	
IC5607	8-752-080-99	IC CXA2112R-T6	
IC5608	8-752-080-99	IC CXA2112R-T6	
IC5609	8-759-530-57	IC TLV431ACDBV2	
IC5801	8-759-544-55	IC MAX4066CEE-TE2	
IC5802	8-752-080-99	IC CXA2112R-T6	
IC5803	8-752-080-99	IC CXA2112R-T6	
IC5804	8-759-381-53	IC UPC814G2-E2	
IC5805	8-759-544-55	IC MAX4066CEE-TE2	
IC5806	8-752-080-99	IC CXA2112R-T6	
IC5807	8-752-080-99	IC CXA2112R-T6	
IC5808	8-759-381-53	IC UPC814G2-E2	
	<COIL>		
L5002	1-416-948-21	INDUCTOR 10UH	
	<TRANSISTOR>		
Q5001	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q5002	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q5601	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q5602	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q5603	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q5604	8-729-231-80	TRANSISTOR 2SC2859-Y-TE85L	
Q5605	8-729-038-80	TRANSISTOR 2SA1182-Y(TE85R)	
Q5801	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q5802	8-729-231-80	TRANSISTOR 2SC2859-Y-TE85L	
Q5803	8-729-038-80	TRANSISTOR 2SA1182-Y(TE85R)	
Q5804	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q5805	8-729-231-80	TRANSISTOR 2SC2859-Y-TE85L	
Q5806	8-729-038-80	TRANSISTOR 2SA1182-Y(TE85R)	
	<RESISTOR>		
R5001	1-216-295-11	SHORT 0	
R5002	1-216-295-11	SHORT 0	
R5003	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R5004	1-216-295-11	SHORT 0	
R5005	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R5006	1-216-073-00	RES-CHIP 10K 5% 1/10W	

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Ref.No.	Part No.	Description			Remark
R5007	1-216-296-91	SHORT	0		
R5008	1-216-296-91	SHORT	0		
R5009	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5010	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5011	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5012	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5013	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5014	1-216-296-91	SHORT	0		
R5015	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5016	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5017	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R5018	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R5019	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R5020	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R5021	1-216-295-11	SHORT	0		
R5022	1-216-684-91	METAL CHIP	24K	0.5%	1/10W
R5023	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R5024	1-216-296-91	SHORT	0		
R5025	1-216-296-91	SHORT	0		
R5026	1-216-025-11	RES-CHIP	100	5%	1/10W
R5027	1-216-296-91	SHORT	0		
R5030	1-216-041-00	RES-CHIP	470	5%	1/10W
R5032	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5033	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5034	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5039	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5040	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5041	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5042	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5043	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5044	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5047	1-216-295-11	SHORT	0		
R5048	1-216-295-11	SHORT	0		
R5049	1-216-295-11	SHORT	0		
R5050	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5051	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5052	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5053	1-216-295-11	SHORT	0		
R5054	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5055	1-216-295-11	SHORT	0		
R5056	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5057	1-216-295-11	SHORT	0		
R5058	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R5060	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5061	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5062	1-216-688-11	METAL CHIP	36K	0.5%	1/10W
R5063	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R5064	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R5065	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5066	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5067	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5071	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5072	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R5073	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R5074	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R5075	1-216-295-11	SHORT	0		
R5076	1-216-041-00	RES-CHIP	470	5%	1/10W
R5077	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5201	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R5202	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R5203	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R5207	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5208	1-216-640-11	METAL CHIP	360	0.5%	1/10W
R5209	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5210	1-216-640-11	METAL CHIP	360	0.5%	1/10W
R5211	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5212	1-216-640-11	METAL CHIP	360	0.5%	1/10W
R5213	1-216-295-11	SHORT	0		
R5214	1-216-295-11	SHORT	0		
R5215	1-216-295-11	SHORT	0		
R5216	1-216-640-11	METAL CHIP	360	0.5%	1/10W
R5217	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R5218	1-216-640-11	METAL CHIP	360	0.5%	1/10W
R5219	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R5220	1-216-640-11	METAL CHIP	360	0.5%	1/10W
R5221	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R5225	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5226	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5227	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5228	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5229	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5230	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5231	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R5232	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R5233	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R5234	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R5235	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R5236	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R5237	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R5238	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R5239	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R5240	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R5241	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R5242	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R5243	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R5244	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R5245	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R5246	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R5251	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W
R5252	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R5253	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R5254	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R5255	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R5256	1-218-776-11	METAL CHIP	1M	0.5%	1/10W
R5257	1-218-776-11	METAL CHIP	1M	0.5%	1/10W
R5258	1-218-776-11	METAL CHIP	1M	0.5%	1/10W
R5259	1-216-043-91	RES-CHIP	560	5%	1/10W
R5260	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R5261	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R5262	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R5263	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5264	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5265	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5266	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5267	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5268	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5269	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R5270	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R5271	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R5272	1-216-295-11	SHORT	0		
R5273	1-216-295-11	SHORT	0		
R5274	1-216-295-11	SHORT	0		
R5409	1-216-295-11	SHORT	0		
R5410	1-216-017-91	RES-CHIP	47	5%	1/10W
R5411	1-216-295-11	SHORT	0		
R5412	1-216-295-11	SHORT	0		
R5413	1-216-017-91	RES-CHIP	47	5%	1/10W
R5415	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5417	1-216-630-11	METAL CHIP	130	0.5%	1/10W
R5418	1-216-630-11	METAL CHIP	130	0.5%	1/10W
R5419	1-216-630-11	METAL CHIP	130	0.5%	1/10W
R5420	1-216-630-11	METAL CHIP	130	0.5%	1/10W

Ref.No.	Part No.	Description			Remark
R5422	1-216-017-91	RES-CHIP	47	5%	1/10W
R5423	1-216-017-91	RES-CHIP	47	5%	1/10W
R5425	1-216-625-11	METAL CHIP	82	0.5%	1/10W
R5426	1-216-625-11	METAL CHIP	82	0.5%	1/10W
R5427	1-216-625-11	METAL CHIP	82	0.5%	1/10W
R5428	1-216-625-11	METAL CHIP	82	0.5%	1/10W
R5429	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5430	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5431	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5433	1-216-295-11	SHORT	0		
R5434	1-216-295-11	SHORT	0		
R5437	1-216-017-91	RES-CHIP	47	5%	1/10W
R5438	1-216-017-91	RES-CHIP	47	5%	1/10W
R5439	1-216-017-91	RES-CHIP	47	5%	1/10W
R5440	1-216-017-91	RES-CHIP	47	5%	1/10W
R5441	1-216-017-91	RES-CHIP	47	5%	1/10W
R5442	1-216-017-91	RES-CHIP	47	5%	1/10W
R5443	1-216-017-91	RES-CHIP	47	5%	1/10W
R5444	1-216-017-91	RES-CHIP	47	5%	1/10W
R5445	1-216-017-91	RES-CHIP	47	5%	1/10W
R5446	1-216-017-91	RES-CHIP	47	5%	1/10W
R5447	1-216-017-91	RES-CHIP	47	5%	1/10W
R5448	1-216-017-91	RES-CHIP	47	5%	1/10W
R5451	1-216-017-91	RES-CHIP	47	5%	1/10W
R5452	1-216-017-91	RES-CHIP	47	5%	1/10W
R5453	1-216-017-91	RES-CHIP	47	5%	1/10W
R5454	1-216-017-91	RES-CHIP	47	5%	1/10W
R5455	1-216-017-91	RES-CHIP	47	5%	1/10W
R5456	1-216-017-91	RES-CHIP	47	5%	1/10W
R5457	1-216-017-91	RES-CHIP	47	5%	1/10W
R5464	1-216-017-91	RES-CHIP	47	5%	1/10W
R5465	1-216-017-91	RES-CHIP	47	5%	1/10W
R5466	1-216-017-91	RES-CHIP	47	5%	1/10W
R5467	1-216-017-91	RES-CHIP	47	5%	1/10W
R5468	1-216-017-91	RES-CHIP	47	5%	1/10W
R5469	1-216-017-91	RES-CHIP	47	5%	1/10W
R5475	1-216-017-91	RES-CHIP	47	5%	1/10W
R5476	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5477	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5478	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5479	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5480	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5481	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5482	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5483	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5484	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5485	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5486	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5487	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5488	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5617	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5619	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5622	1-216-295-11	SHORT	0		
R5629	1-216-295-11	SHORT	0		
R5630	1-216-295-11	SHORT	0		
R5632	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5633	1-216-190-00	RES-CHIP	470	5%	1/8W
R5635	1-216-190-00	RES-CHIP	470	5%	1/8W
R5638	1-216-295-11	SHORT	0		
R5642	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5645	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5646	1-216-295-11	SHORT	0		
R5647	1-216-295-11	SHORT	0		
R5648	1-216-025-11	RES-CHIP	100	5%	1/10W
R5650	1-216-190-00	RES-CHIP	470	5%	1/8W
R5654	1-216-295-11	SHORT	0		

Ref.No.	Part No.	Description			Remark
R5655	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5656	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5657	1-216-190-00	RES-CHIP	470	5%	1/8W
R5660	1-216-295-11	SHORT	0		
R5661	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5662	1-216-295-11	SHORT	0		
R5663	1-216-295-11	SHORT	0		
R5667	1-216-295-11	SHORT	0		
R5669	1-216-295-11	SHORT	0		
R5671	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R5672	1-216-025-11	RES-CHIP	100	5%	1/10W
R5676	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5677	1-216-295-11	SHORT	0		
R5683	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5685	1-216-295-11	SHORT	0		
R5700	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5701	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5702	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5703	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5704	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5705	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5709	1-216-001-00	RES-CHIP	10	5%	1/10W
R5710	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5711	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5712	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5713	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5714	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5715	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5716	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5723	1-216-009-91	RES-CHIP	22	5%	1/10W
R5724	1-216-009-91	RES-CHIP	22	5%	1/10W
R5725	1-216-009-91	RES-CHIP	22	5%	1/10W
R5726	1-216-009-91	RES-CHIP	22	5%	1/10W
R5727	1-216-009-91	RES-CHIP	22	5%	1/10W
R5728	1-216-009-91	RES-CHIP	22	5%	1/10W
R5729	1-216-009-91	RES-CHIP	22	5%	1/10W
R5730	1-216-009-91	RES-CHIP	22	5%	1/10W
R5731	1-216-009-91	RES-CHIP	22	5%	1/10W
R5732	1-216-009-91	RES-CHIP	22	5%	1/10W
R5733	1-216-009-91	RES-CHIP	22	5%	1/10W
R5734	1-216-009-91	RES-CHIP	22	5%	1/10W
R5735	1-216-025-11	RES-CHIP	100	5%	1/10W
R5736	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5738	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5739	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5740	1-216-001-00	RES-CHIP	10	5%	1/10W
R5741	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5743	1-216-296-91	SHORT	0		
R5744	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5745	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5746	1-216-296-91	SHORT	0		
R5747	1-216-295-11	SHORT	0		
R5748	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5750	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R5751	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5752	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5753	1-216-043-91	RES-CHIP	560	5%	1/10W
R5801	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5802	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5803	1-216-295-11	SHORT	0		
R5804	1-216-295-11	SHORT	0		
R5805	1-216-025-11	RES-CHIP	100	5%	1/10W
R5806	1-216-001-00	RES-CHIP	10	5%	1/10W
R5807	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5808	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5809	1-216-685-11	METAL CHIP	27K	0.5%	1/10W

Ref.No.	Part No.	Description			Remark
R5810	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5811	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5812	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5813	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5814	1-216-295-11	SHORT	0		
R5815	1-216-295-11	SHORT	0		
R5816	1-216-025-11	RES-CHIP	100	5%	1/10W
R5817	1-216-009-91	RES-CHIP	22	5%	1/10W
R5818	1-216-009-91	RES-CHIP	22	5%	1/10W
R5819	1-216-009-91	RES-CHIP	22	5%	1/10W
R5820	1-216-009-91	RES-CHIP	22	5%	1/10W
R5821	1-216-009-91	RES-CHIP	22	5%	1/10W
R5822	1-216-009-91	RES-CHIP	22	5%	1/10W
R5823	1-216-009-91	RES-CHIP	22	5%	1/10W
R5824	1-216-009-91	RES-CHIP	22	5%	1/10W
R5825	1-216-009-91	RES-CHIP	22	5%	1/10W
R5826	1-216-009-91	RES-CHIP	22	5%	1/10W
R5827	1-216-009-91	RES-CHIP	22	5%	1/10W
R5828	1-216-009-91	RES-CHIP	22	5%	1/10W
R5829	1-216-025-11	RES-CHIP	100	5%	1/10W
R5830	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5832	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5833	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5834	1-216-001-00	RES-CHIP	10	5%	1/10W
R5835	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5837	1-216-296-91	SHORT	0		
R5838	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5839	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5840	1-216-296-91	SHORT	0		
R5841	1-216-295-11	SHORT	0		
R5842	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5844	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5845	1-216-023-00	RES-CHIP	82	5%	1/10W
R5846	1-216-630-11	METAL CHIP	130	0.5%	1/10W
R5847	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R5848	1-216-023-00	RES-CHIP	82	5%	1/10W
R5849	1-216-630-11	METAL CHIP	130	0.5%	1/10W
R5850	1-216-295-11	SHORT	0		
R5851	1-216-295-11	SHORT	0		
R5852	1-216-025-11	RES-CHIP	100	5%	1/10W
R5853	1-216-001-00	RES-CHIP	10	5%	1/10W
R5854	1-216-295-11	SHORT	0		
R5855	1-216-295-11	SHORT	0		
R5856	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5857	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5858	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R5859	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5860	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5861	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5862	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5863	1-216-025-11	RES-CHIP	100	5%	1/10W
R5864	1-216-009-91	RES-CHIP	22	5%	1/10W
R5865	1-216-009-91	RES-CHIP	22	5%	1/10W
R5866	1-216-009-91	RES-CHIP	22	5%	1/10W
R5867	1-216-009-91	RES-CHIP	22	5%	1/10W
R5868	1-216-009-91	RES-CHIP	22	5%	1/10W
R5869	1-216-009-91	RES-CHIP	22	5%	1/10W
R5870	1-216-009-91	RES-CHIP	22	5%	1/10W
R5871	1-216-009-91	RES-CHIP	22	5%	1/10W
R5872	1-216-009-91	RES-CHIP	22	5%	1/10W
R5873	1-216-009-91	RES-CHIP	22	5%	1/10W
R5874	1-216-009-91	RES-CHIP	22	5%	1/10W
R5875	1-216-009-91	RES-CHIP	22	5%	1/10W
R5876	1-216-025-11	RES-CHIP	100	5%	1/10W
R5877	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5879	1-216-057-00	RES-CHIP	2.2K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R5880	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5881	1-216-001-00	RES-CHIP	10	5%	1/10W
R5882	1-216-073-00	RES-CHIP	10K	5%	1/10W
R5884	1-216-296-91	SHORT	0		
R5885	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5886	1-216-298-00	RES-CHIP	2.2	5%	1/10W
R5887	1-216-296-91	SHORT	0		
R5888	1-216-295-11	SHORT	0		
R5889	1-216-073-00	RES-CHIP	10K	5%	1/10W
	<VARIABLE RESISTOR>				
RV5001	1-223-272-11	RES, ADJ, CERMET 470			
RV5002	1-223-272-11	RES, ADJ, CERMET 470			
RV5003	1-223-272-11	RES, ADJ, CERMET 470			
	<THERMISTOR>				
TH5001	1-806-715-11	THERMISTOR			

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	* 1-675-366-11	PWB, V ****************			
	* 1-778-697-11	HOUSING, CONNECTOR 3P			
	<CONNECTOR>				
CN901	* 1-564-519-11	PLUG, CONNECTOR 4P			
	<FUSE>				
F901	1-532-990-11	FUSE, TEMPERATURE			
	<SWITCH>				
S901	1-771-808-11	SWITCH, THERMAL GUARD			

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	* 1-675-363-11	PWB, UB ****************			
	<CONNECTOR>				
CN701	* 1-564-517-11	PLUG, CONNECTOR 2P			
	<SWITCH>				
S701	1-570-245-11	SWITCH, MICRO			

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Ref.No.	Part No.	Description			Remark
	* 1-675-364-11	PWB, UC *****************			
	<CONNECTOR>				
CN751	* 1-564-517-11	PLUG, CONNECTOR 2P			
	<SWITCH>				
S751	1-570-245-11	SWITCH, MICRO			

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Ref.No.	Part No.	Description			Remark
	* A-1390-906-A	XC MOUNT *****************			
	<CONNECTOR>				
CN551	* 1-564-712-11	PIN, CONNECTOR (SMALL TYPE)10P			
CN552	* 1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN553	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CN554	* 1-564-716-11	PIN, CONNECTOR (SMALL TYPE)14P			
CN555	* 1-564-712-11	PIN, CONNECTOR (SMALL TYPE)10P			
CN556	* 1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN557	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CN558	* 1-564-716-11	PIN, CONNECTOR (SMALL TYPE)14P			

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Ref.No.	Part No.	Description			Remark
	* A-1390-961-A	N MOUNT *****************			
	<CAPACITOR>				
C801	1-124-779-00	ELECT CHIP	10UF	20%	16V
C802	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
	<CONNECTOR>				
CN801	* 1-564-518-11	PLUG, CONNECTOR 3P			
	<DIODE>				
D801	8-719-977-95	DIODE RD5.6SB2-T1			
	<IC>				
IC801	8-742-129-00	HYB IC SBX1971-51P			
	<RESISTOR>				
R801	1-216-025-11	RES-CHIP	100	5%	1/10W
R802	1-216-017-91	RES-CHIP	47	5%	1/10W

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Ref.No.	Part No.	Description			Remark
	* A-1391-092-A	XB MOUNT *****************			

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Ref.No.	Part No.	Description			Remark
	* 1-675-362-11	PWB, UA *****************			
	<CONNECTOR>				
CN601	* 1-564-507-11	PLUG, CONNECTOR 4P			
	<PHOTO COUPLER>				
PH601	1-806-293-12	PHOTO INTERRUPTER EE-SX1071			
	<TRANSISTOR>				
Q601	1-801-806-11	TRANSISTOR DTC144EKA-T146			
	<RESISTOR>				
R601	1-216-031-00	RES-CHIP	180	5%	1/10W

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Ref.No.	Part No.	Description			Remark
	* A-1375-192-A	H COMPL *****************			
	4-362-612-00	HOLDER (B), LED			
	<CAPACITOR>				
C6001	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6002	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C6003	1-128-391-11	ELECT CHIP	330UF	20%	6.3V
C6004	1-128-391-11	ELECT CHIP	330UF	20%	6.3V
C6201	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6202	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6203	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6204	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6205	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6206	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6207	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6208	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6209	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6305	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6306	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6307	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6308	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6309	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6310	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6311	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6312	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6313	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C6314	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6315	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6316	1-164-506-11	CERAMIC CHIP	4.7UF	16V	
C6321	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6322	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6323	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6324	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6325	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6326	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6327	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6328	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6329	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6330	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6331	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
C6332	1-164-506-11	CERAMIC CHIP	4.7UF	16V	

Ref.No.	Part No.	Description	Remark
C6333	1-164-004-11	CERAMIC CHIP 0.1UF 10% 25V	
C6334	1-164-506-11	CERAMIC CHIP 4.7UF 16V	
C6335	1-128-391-11	ELECT CHIP 330UF 20% 6.3V	
C6336	1-128-391-11	ELECT CHIP 330UF 20% 6.3V	

<CONNECTOR>

Ref.No.	Part No.	Description	Remark
CN6001	* 1-580-055-21	PIN, CONNECTOR (SMD) 2P	
CN6002	* 1-695-223-21	PIN, CONNECTOR (SMD) 10P	
CN6003	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P	
CN6004	* 1-580-789-21	PIN, CONNECTOR (SMD) 6P	

<DIODE>

Ref.No.	Part No.	Description	Remark
D6001	8-719-800-76	DIODE MA157-TX	
D6002	8-719-800-76	DIODE MA157-TX	
D6003	8-719-800-76	DIODE MA157-TX	
D6004	8-719-800-76	DIODE MA157-TX	
D6005	8-719-800-76	DIODE MA157-TX	
D6006	8-719-800-76	DIODE MA157-TX	
D6007	8-719-800-76	DIODE MA157-TX	
D6008	8-719-800-76	DIODE MA157-TX	
D6009	8-719-800-76	DIODE MA157-TX	
D6010	8-719-800-76	DIODE MA157-TX	
D6011	8-719-800-76	DIODE MA157-TX	
D6012	8-719-800-76	DIODE MA157-TX	
D6013	8-719-800-76	DIODE MA157-TX	
D6014	8-719-800-76	DIODE MA157-TX	
D6015	8-719-800-76	DIODE MA157-TX	
D6016	8-719-800-76	DIODE MA157-TX	
D6017	8-719-800-76	DIODE MA157-TX	
D6201	8-719-976-22	DIODE MU03-2205	
D6202	8-719-976-22	DIODE MU03-2205	
D6203	8-719-914-43	DIODE DAN202K-T-146	
D6204	8-719-914-43	DIODE DAN202K-T-146	
D6205	8-719-976-22	DIODE MU03-2205	
D6206	8-719-976-22	DIODE MU03-2205	
D6301	8-719-045-61	DIODE SEC1901C	
D6302	8-719-045-61	DIODE SEC1901C	
D6303	8-719-045-61	DIODE SEC1901C	
D6304	8-719-045-61	DIODE SEC1901C	
D6305	8-719-045-60	DIODE SEC1401C	
D6306	8-719-045-60	DIODE SEC1401C	
D6307	8-719-045-61	DIODE SEC1901C	
D6308	8-719-045-61	DIODE SEC1901C	
D6309	8-719-045-61	DIODE SEC1901C	
D6310	8-719-045-61	DIODE SEC1901C	
D6311	8-719-045-60	DIODE SEC1401C	
D6312	8-719-045-60	DIODE SEC1401C	
D6313	8-719-045-61	DIODE SEC1901C	
D6314	8-719-045-61	DIODE SEC1901C	
D6315	8-719-045-61	DIODE SEC1901C	
D6316	8-719-045-61	DIODE SEC1901C	
D6317	8-719-045-60	DIODE SEC1401C	
D6318	8-719-045-60	DIODE SEC1401C	
D6319	8-719-045-61	DIODE SEC1901C	
D6320	8-719-045-61	DIODE SEC1901C	
D6321	8-719-045-61	DIODE SEC1901C	
D6322	8-719-045-61	DIODE SEC1901C	
D6323	8-719-045-60	DIODE SEC1401C	
D6324	8-719-045-60	DIODE SEC1401C	
D6325	8-719-045-61	DIODE SEC1901C	
D6326	8-719-045-61	DIODE SEC1901C	
D6327	8-719-045-61	DIODE SEC1901C	
D6328	8-719-045-61	DIODE SEC1901C	
D6329	8-719-045-60	DIODE SEC1401C	
D6330	8-719-045-60	DIODE SEC1401C	
D6331	8-719-045-61	DIODE SEC1901C	
D6332	8-719-915-45	DIODE SLP-155B-81	
D6333	8-719-045-61	DIODE SEC1901C	
D6334	8-719-045-61	DIODE SEC1901C	
D6335	8-719-045-61	DIODE SEC1901C	
D6336	8-719-918-87	DIODE SLP-255B-81	

<DELAY LINE>

Ref.No.	Part No.	Description	Remark
DL6201	8-719-072-87	DIODE MU04-3101	
DL6202	8-719-071-09	DIODE MU04-2105	
DL6203	8-719-071-09	DIODE MU04-2105	
DL6204	8-719-071-09	DIODE MU04-2105	
DL6205	8-719-071-09	DIODE MU04-2105	

<IC>

Ref.No.	Part No.	Description	Remark
IC6001	8-742-129-00	HYB IC SBX1971-51P	
IC6301	8-759-470-51	IC MB88141APFV-ER	
IC6302	8-759-174-16	IC TC74VHC244F(EL)	
IC6303	8-759-470-51	IC MB88141APFV-ER	
IC6304	8-759-174-16	IC TC74VHC244F(EL)	

<TRANSISTOR>

Ref.No.	Part No.	Description	Remark
Q6001	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6002	8-729-014-93	TRANSISTOR 2SB1440S-TX	
Q6201	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6202	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6203	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6204	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6205	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6206	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6207	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6208	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6209	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6210	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6211	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6212	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6213	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6214	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6215	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6216	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q6217	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6218	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6301	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6302	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6303	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6304	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6305	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6306	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6307	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6308	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6309	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6310	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q6311	8-729-014-93	TRANSISTOR 2SB1440S-TX	
Q6312	8-729-014-93	TRANSISTOR 2SB1440S-TX	
Q6313	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6314	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6315	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6316	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q6317	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	

<RESISTOR>

Ref.No.	Part No.	Description	Remark
R6002	1-216-049-11	RES-CHIP 1K 5% 1/10W	

Ref.No.	Part No.	Description			Remark
R6003	1-216-025-11	RES-CHIP	100	5%	1/10W
R6004	1-216-023-00	RES-CHIP	82	5%	1/10W
R6005	1-216-023-00	RES-CHIP	82	5%	1/10W
R6006	1-216-023-00	RES-CHIP	82	5%	1/10W
R6007	1-216-023-00	RES-CHIP	82	5%	1/10W
R6008	1-216-023-00	RES-CHIP	82	5%	1/10W
R6009	1-216-023-00	RES-CHIP	82	5%	1/10W
R6010	1-216-023-00	RES-CHIP	82	5%	1/10W
R6011	1-216-023-00	RES-CHIP	82	5%	1/10W
R6012	1-216-023-00	RES-CHIP	82	5%	1/10W
R6013	1-216-023-00	RES-CHIP	82	5%	1/10W
R6015	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6016	1-216-025-11	RES-CHIP	100	5%	1/10W
R6017	1-216-025-11	RES-CHIP	100	5%	1/10W
R6018	1-216-025-11	RES-CHIP	100	5%	1/10W
R6019	1-216-025-11	RES-CHIP	100	5%	1/10W
R6020	1-216-025-11	RES-CHIP	100	5%	1/10W
R6021	1-216-025-11	RES-CHIP	100	5%	1/10W
R6022	1-216-025-11	RES-CHIP	100	5%	1/10W
R6023	1-216-025-11	RES-CHIP	100	5%	1/10W
R6024	1-216-025-11	RES-CHIP	100	5%	1/10W
R6025	1-216-025-11	RES-CHIP	100	5%	1/10W
R6026	1-216-025-11	RES-CHIP	100	5%	1/10W
R6027	1-216-025-11	RES-CHIP	100	5%	1/10W
R6028	1-216-025-11	RES-CHIP	100	5%	1/10W
R6029	1-216-025-11	RES-CHIP	100	5%	1/10W
R6030	1-216-025-11	RES-CHIP	100	5%	1/10W
R6031	1-216-025-11	RES-CHIP	100	5%	1/10W
R6101	1-216-083-00	RES-CHIP	27K	5%	1/10W
R6102	1-216-083-00	RES-CHIP	27K	5%	1/10W
R6103	1-216-083-00	RES-CHIP	27K	5%	1/10W
R6104	1-216-075-00	RES-CHIP	12K	5%	1/10W
R6105	1-216-075-00	RES-CHIP	12K	5%	1/10W
R6106	1-216-075-00	RES-CHIP	12K	5%	1/10W
R6107	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R6108	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R6109	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R6110	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R6111	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R6112	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R6113	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R6114	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R6115	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R6116	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6117	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6118	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6119	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R6120	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R6121	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R6122	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R6123	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R6124	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R6125	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6126	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6127	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6201	1-216-041-00	RES-CHIP	470	5%	1/10W
R6202	1-216-041-00	RES-CHIP	470	5%	1/10W
R6203	1-216-041-00	RES-CHIP	470	5%	1/10W
R6204	1-216-041-00	RES-CHIP	470	5%	1/10W
R6205	1-216-041-00	RES-CHIP	470	5%	1/10W
R6206	1-216-041-00	RES-CHIP	470	5%	1/10W
R6207	1-216-041-00	RES-CHIP	470	5%	1/10W
R6208	1-216-041-00	RES-CHIP	470	5%	1/10W
R6209	1-216-041-00	RES-CHIP	470	5%	1/10W
R6210	1-216-041-00	RES-CHIP	470	5%	1/10W
R6211	1-216-041-00	RES-CHIP	470	5%	1/10W
R6212	1-216-041-00	RES-CHIP	470	5%	1/10W
R6213	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6214	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6215	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6216	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6217	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6218	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6219	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6220	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6221	1-216-041-00	RES-CHIP	470	5%	1/10W
R6222	1-216-041-00	RES-CHIP	470	5%	1/10W
R6223	1-216-041-00	RES-CHIP	470	5%	1/10W
R6224	1-216-041-00	RES-CHIP	470	5%	1/10W
R6225	1-216-041-00	RES-CHIP	470	5%	1/10W
R6226	1-216-041-00	RES-CHIP	470	5%	1/10W
R6227	1-216-041-00	RES-CHIP	470	5%	1/10W
R6228	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6229	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6230	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6231	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6232	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6233	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6234	1-216-041-00	RES-CHIP	470	5%	1/10W
R6235	1-216-041-00	RES-CHIP	470	5%	1/10W
R6236	1-216-041-00	RES-CHIP	470	5%	1/10W
R6237	1-216-041-00	RES-CHIP	470	5%	1/10W
R6238	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6239	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6240	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6241	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6301	1-216-035-00	RES-CHIP	270	5%	1/10W
R6302	1-216-035-00	RES-CHIP	270	5%	1/10W
R6303	1-216-035-00	RES-CHIP	270	5%	1/10W
R6304	1-216-035-00	RES-CHIP	270	5%	1/10W
R6308	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6309	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6316	1-216-031-00	RES-CHIP	180	5%	1/10W
R6317	1-216-031-00	RES-CHIP	180	5%	1/10W
R6320	1-216-035-00	RES-CHIP	270	5%	1/10W
R6322	1-216-097-11	RES-CHIP	100K	5%	1/10W
R6323	1-216-025-11	RES-CHIP	100	5%	1/10W
R6324	1-216-097-11	RES-CHIP	100K	5%	1/10W
R6326	1-216-025-11	RES-CHIP	100	5%	1/10W
R6327	1-216-295-11	SHORT	0		
R6328	1-216-035-00	RES-CHIP	270	5%	1/10W
R6329	1-216-035-00	RES-CHIP	270	5%	1/10W
R6330	1-216-295-11	SHORT	0		
R6331	1-216-025-11	RES-CHIP	100	5%	1/10W
R6332	1-216-035-00	RES-CHIP	270	5%	1/10W
R6335	1-216-025-11	RES-CHIP	100	5%	1/10W
R6336	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6337	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6338	1-216-295-11	SHORT	0		
R6339	1-216-295-11	SHORT	0		
R6340	1-216-025-11	RES-CHIP	100	5%	1/10W
R6342	1-216-025-11	RES-CHIP	100	5%	1/10W
R6343	1-216-031-00	RES-CHIP	180	5%	1/10W
R6344	1-216-031-00	RES-CHIP	180	5%	1/10W
R6345	1-216-035-00	RES-CHIP	270	5%	1/10W
R6346	1-216-025-11	RES-CHIP	100	5%	1/10W
R6347	1-216-025-11	RES-CHIP	100	5%	1/10W
R6348	1-216-035-00	RES-CHIP	270	5%	1/10W
R6349	1-216-035-00	RES-CHIP	270	5%	1/10W
R6350	1-216-035-00	RES-CHIP	270	5%	1/10W
R6351	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6352	1-216-049-11	RES-CHIP	1K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R6353	1-216-031-00	RES-CHIP	180	5%	1/10W
R6354	1-216-031-00	RES-CHIP	180	5%	1/10W
R6355	1-216-035-00	RES-CHIP	270	5%	1/10W
R6356	1-216-035-00	RES-CHIP	270	5%	1/10W
R6357	1-216-035-00	RES-CHIP	270	5%	1/10W
R6358	1-216-035-00	RES-CHIP	270	5%	1/10W
R6359	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6360	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6361	1-216-031-00	RES-CHIP	180	5%	1/10W
R6362	1-216-031-00	RES-CHIP	180	5%	1/10W
R6363	1-216-035-00	RES-CHIP	270	5%	1/10W
R6364	1-216-035-00	RES-CHIP	270	5%	1/10W
R6365	1-216-035-00	RES-CHIP	270	5%	1/10W
R6366	1-216-035-00	RES-CHIP	270	5%	1/10W
R6367	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6368	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6371	1-216-031-00	RES-CHIP	180	5%	1/10W
R6372	1-216-031-00	RES-CHIP	180	5%	1/10W
R6374	1-216-035-00	RES-CHIP	270	5%	1/10W
R6384	1-216-097-11	RES-CHIP	100K	5%	1/10W
R6385	1-216-025-11	RES-CHIP	100	5%	1/10W
R6386	1-216-097-11	RES-CHIP	100K	5%	1/10W
R6387	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6389	1-216-025-11	RES-CHIP	100	5%	1/10W
R6390	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6391	1-216-295-11	SHORT	0		
R6393	1-216-025-11	RES-CHIP	100	5%	1/10W
R6394	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6395	1-216-295-11	SHORT	0		
R6396	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6397	1-216-295-11	SHORT	0		
R6398	1-216-025-11	RES-CHIP	100	5%	1/10W
R6401	1-216-025-11	RES-CHIP	100	5%	1/10W
R6402	1-216-295-11	SHORT	0		
R6403	1-216-025-11	RES-CHIP	100	5%	1/10W
R6404	1-216-025-11	RES-CHIP	100	5%	1/10W
R6405	1-216-025-11	RES-CHIP	100	5%	1/10W
R6408	1-216-035-00	RES-CHIP	270	5%	1/10W
R6410	1-216-035-00	RES-CHIP	270	5%	1/10W
R6411	1-216-035-00	RES-CHIP	270	5%	1/10W
R6412	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6413	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6414	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6415	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6416	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6417	1-216-035-00	RES-CHIP	270	5%	1/10W
R6418	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6419	1-216-035-00	RES-CHIP	270	5%	1/10W
	<SWITCH>				
S6101	1-692-679-21	SWITCH, TACTILE			
S6102	1-692-679-21	SWITCH, TACTILE			
S6103	1-692-679-21	SWITCH, TACTILE			
S6104	1-692-679-21	SWITCH, TACTILE			
S6105	1-692-679-21	SWITCH, TACTILE			
S6106	1-692-679-21	SWITCH, TACTILE			
S6107	1-692-679-21	SWITCH, TACTILE			
S6108	1-692-679-21	SWITCH, TACTILE			
S6109	1-692-679-21	SWITCH, TACTILE			
S6110	1-692-679-21	SWITCH, TACTILE			
S6111	1-692-679-21	SWITCH, TACTILE			
S6112	1-692-679-21	SWITCH, TACTILE			
S6113	1-692-679-21	SWITCH, TACTILE			
S6114	1-692-679-21	SWITCH, TACTILE			
S6115	1-692-679-21	SWITCH, TACTILE			
S6116	1-692-679-21	SWITCH, TACTILE			
S6117	1-692-679-21	SWITCH, TACTILE			
S6118	1-692-679-21	SWITCH, TACTILE			
S6119	1-692-679-21	SWITCH, TACTILE			
S6120	1-692-679-21	SWITCH, TACTILE			
S6121	1-692-679-21	SWITCH, TACTILE			
S6122	1-692-679-21	SWITCH, TACTILE			
S6123	1-692-679-21	SWITCH, TACTILE			
S6124	1-692-679-21	SWITCH, TACTILE			

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	* A-1391-093-A	XA MOUNT ****************			
	7-621-255-45	SCREW +P	2X6		
	<CAPACITOR>				
C501	1-117-681-11	ELECT CHIP	100UF	20%	16V
C502	1-164-004-11	CERAMIC CHIP	0.1UF	10%	25V
	<CONNECTOR>				
CN501	* 1-691-845-11	CONNECTOR, BOARD TO BOARD 50P			
CN502	* 1-778-391-11	SOCKET, PC CONNECTOR 96P			
CN503	* 1-778-391-11	SOCKET, PC CONNECTOR 96P			
CN504	* 1-778-391-11	SOCKET, PC CONNECTOR 96P			
CN505	* 1-564-714-11	PIN, CONNECTOR (SMALL TYPE)12P			
CN506	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN507	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN508	1-564-506-11	PLUG, CONNECTOR 3P			
	<DIODE>				
D501	8-719-914-43	DIODE DAN202K-T-146			
D502	8-719-914-43	DIODE DAN202K-T-146			
	<IC>				
IC501	8-759-100-93	IC UPC393G2			
	<JACK>				
J501	1-568-547-11	JACK, MINIATUER PIN			
J502	1-568-547-11	JACK, MINIATUER PIN			
J503	1-568-547-11	JACK, MINIATUER PIN			
	<COIL>				
L501	1-410-462-11	INDUCTOR	2.2UH		
	<TRANSISTOR>				
Q501	8-729-900-53	TRANSISTOR DTC114EKA-T146			
	<RESISTOR>				
R501	1-216-396-11	METAL OXIDE	3.9	5%	3W
R502	1-216-073-00	RES-CHIP	10K	5%	1/10W
R503	1-216-073-00	RES-CHIP	10K	5%	1/10W
R504	1-216-097-11	RES-CHIP	100K	5%	1/10W
R505	1-216-073-00	RES-CHIP	10K	5%	1/10W
R506	1-216-073-00	RES-CHIP	10K	5%	1/10W

Ref.No.	Part No.	Description	Remark
	<RELAY>		
RY501	1-755-384-21	RELAY	
RY502	1-755-384-21	RELAY	
RY503	1-755-384-21	RELAY	

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Ref.No.	Part No.	Description	Remark
	* 1-680-249-11	PWB, GF ****************	
	<CONNECTOR>		
CN151	* 1-537-711-11	TAB, FASTEN (PCB)	
CN152	* 1-537-711-11	TAB, FASTEN (PCB)	
CN153	1-695-915-11	TAB (CONTACT)	
CN154	1-695-915-11	TAB (CONTACT)	

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ACCESSORY
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Ref.No.	Part No.	Description	Remark
	* 1-506-622-11	CONNECTOR, PS 14P	
	⚠1-775-981-11	CORD SET, POWER (15A/250V)	(FE110U)
	⚠1-590-151-11	CORD SET, POWER (10A/125V)	(FE110M)
	1-782-021-11	CORD, CONNECTION	
	1-785-523-11	TERMINATOR, D SUB 9P	
	4-080-092-01	HELP(OSD)	
	4-080-673-11	OPERATING INSTRUCTIONS	(FE110U)(ENGLISH)
	4-080-673-21	OPERATING INSTRUCTIONS	(FE110M)(CHINESE)
	4-080-674-11	INSTALLATION MANUAL FOR DEALER	(ENGLISH)
	4-080-674-21	INSTALLATION MANUAL FOR DEALER	(FE110M)(CHINESE)
	4-080-675-01	PROJECTION DISTANCE CHART	
	4-080-676-01	OPERATING INSTRUCTION(FOR NW)	
	4-080-679-11	HELP	
	4-080-680-01	CD–ROM(MANUAL INSTRUCTION)	
	4-068-063-02	SCREW, WASHER	
	* 4-070-718-01	RING (STF), LENS	
	* 4-070-719-01	WASHER (STF), LENS	

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Ref.No.	Part No.	Description	Remark
	3-865-453-01	INSTRUCTION MANUAL	
	4-056-753-01	SPACER	
	4-068-372-01	BOLT(M10X20), HEXAGON HEAD	
	7-623-215-22	WASHER(M10), LOCK SPRING	
	7-683-353-07	BOLT(M6X12), HEXAGON HEAD	
	7-683-380-07	BOLT(M8X20), HEXAGON	
	7-688-000-22	WASHER(M8), FLAT	
	7-688-000-23	WASHER(M10), PLAIN	
	7-688-006-12	WASHER(M6), PLAIN	

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Ref.No.	Part No.	Description	Remark
	3-865-454-01	INSTALLATION MANUAL	
	4-068-378-01	WASHER(M10), PLAIN	
	4-068-379-01	SCREW(M10X20)	
	4-068-380-01	WASHER(M10), SPRING LOCK	
	4-068-381-01	SCREW(M5X12)	
	* 4-068-382-01	BRACKET, STACK	
	* 4-068-383-01	SHAFT, STACK	

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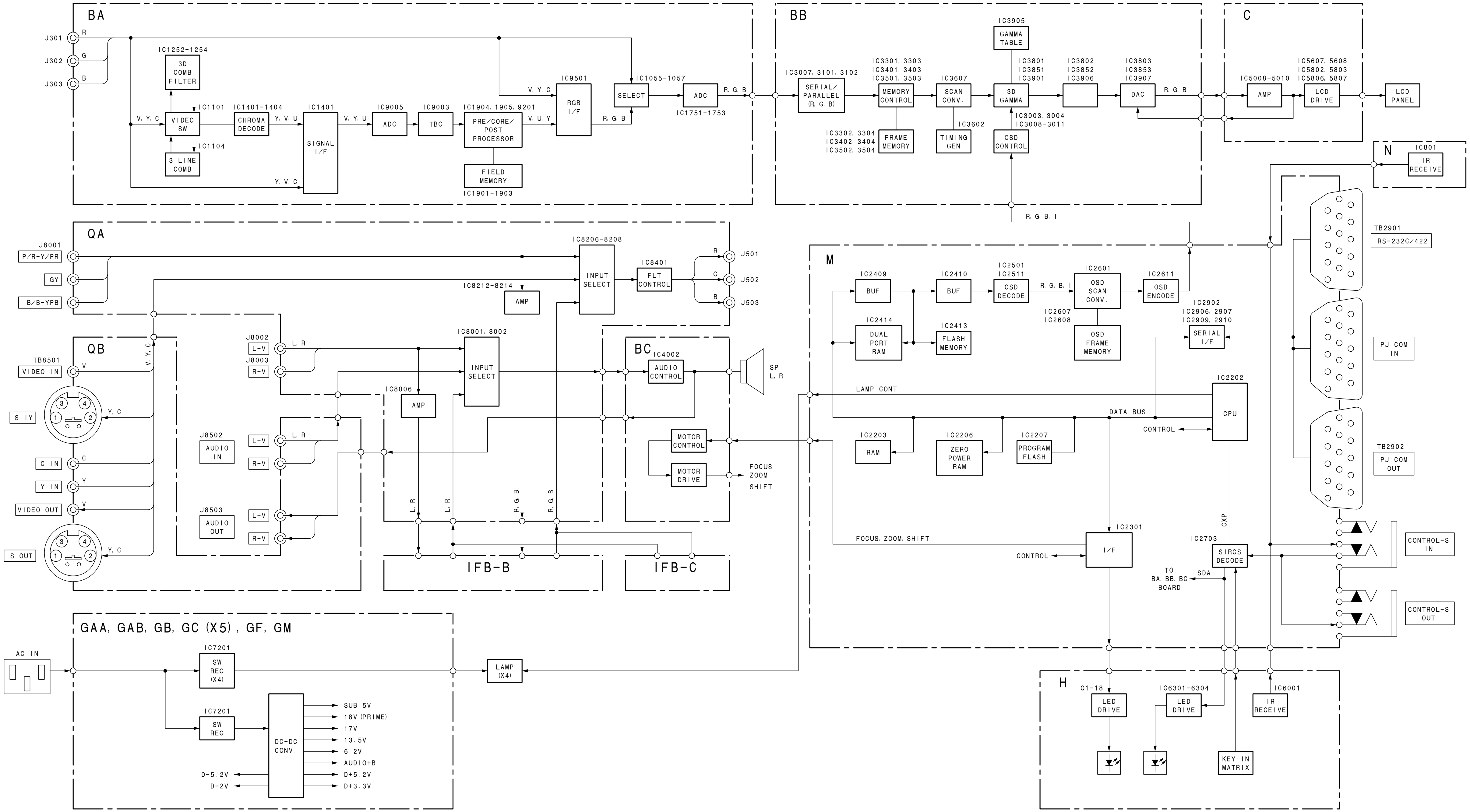
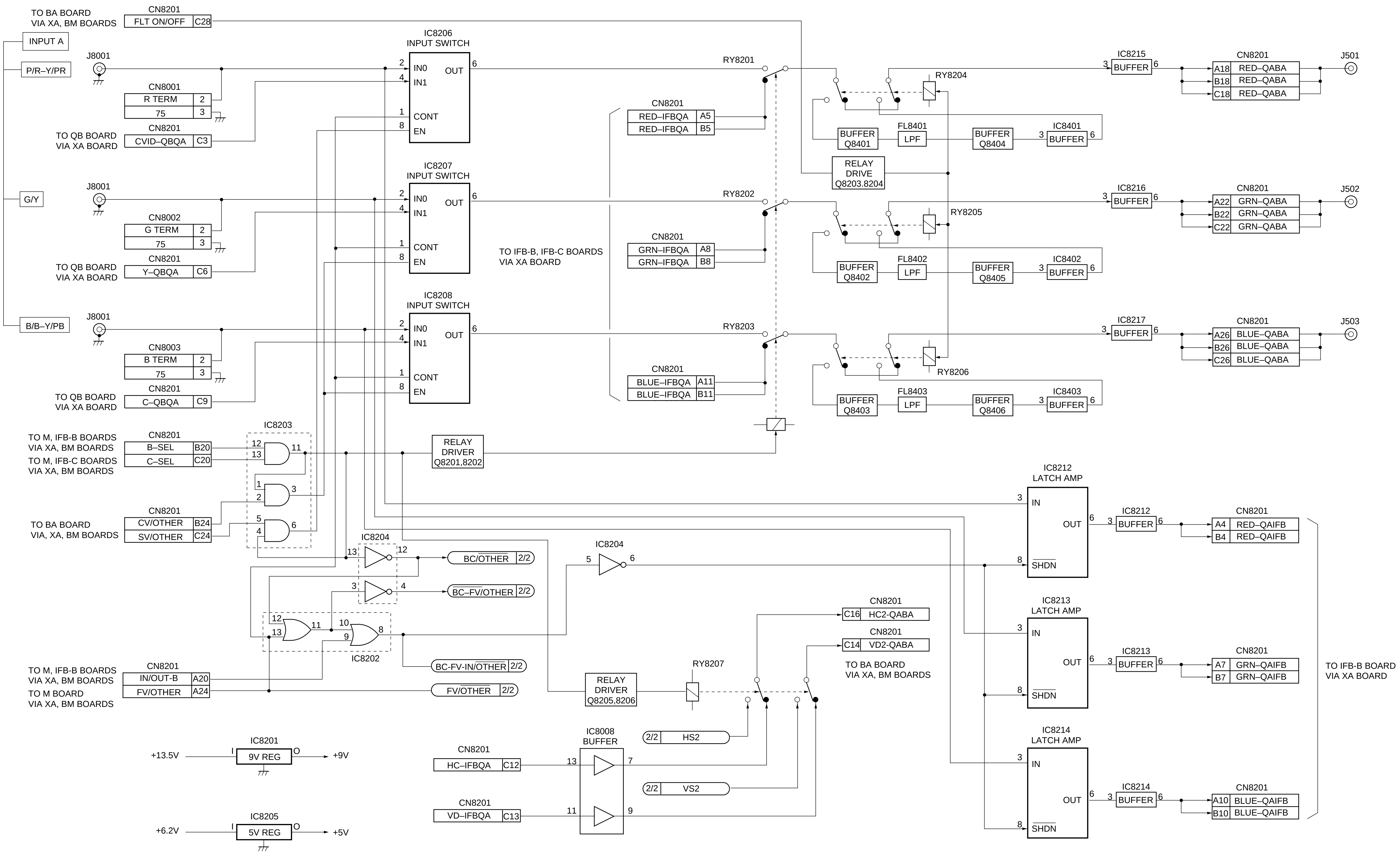
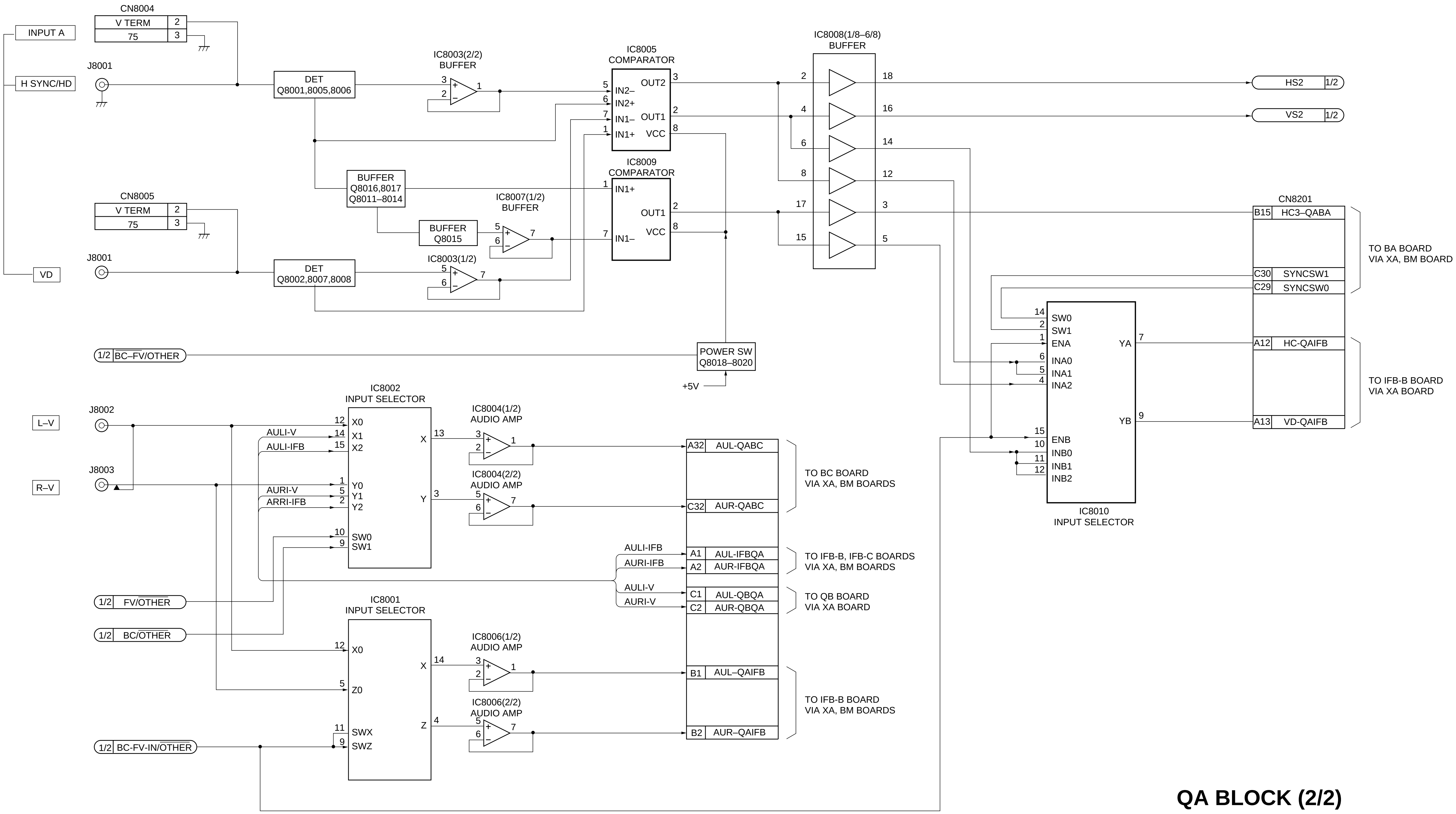
Section 9
Block Diagrams


BA
J301
J302
J303
R
G
B
IC1252-1254
3D COMB FILTER
IC1101
VIDEO SW
IC1104
3 LINE COMB
V. Y. C
IC1401-1404
CHROMA DECODE
Y. V. U
IC1401
SIGNAL I/F
Y. V. C
V. Y. U
IC9005
ADC
IC9003
TBC
IC1904, 1905, 9201
PRE/CORE/POST PROCESSOR
FIELD MEMORY
IC1901-1903
V. U. Y
IC9501
RGB I/F
V. Y. C
R. G. B
SELECT
IC1055-1057
ADC
IC1751-1753
R. G. B
BB
IC3007, 3101, 3102
SERIAL/PARALLEL (R. G. B)
IC3301, 3303
IC3401, 3403
IC3501, 3503
MEMORY CONTROL
IC3302, 3304
IC3402, 3404
IC3502, 3504
FRAME MEMORY
IC3607
SCAN CONV.
IC3602
TIMING GEN
IC3905
GAMMA TABLE
IC3801
IC3851
IC3901
3D GAMMA
IC3003, 3004
IC3008-3011
OSD CONTROL
IC3802
IC3852
IC3906
IC3803
IC3853
IC3907
DAC
R. G. B
C
IC5008-5010
AMP
IC5607, 5608
IC5802, 5803
IC5806, 5807
LCD DRIVE
LCD PANEL
N
IC801
IR RECEIVE
R. G. B. I
TB2901
RS-232C/422
PJ COM IN
TB2902
PJ COM OUT
QA
J8001
P/R-Y/PR
GY
B/B-YPB
IC8206-8208
INPUT SELECT
IC8212-8214
AMP
IC8401
FLT CONTROL
R
G
B
J501
J502
J503
QB
TB8501
VIDEO IN
V
S IY
Y. C
C IN
C
Y IN
Y
VIDEO OUT
V
S OUT
Y. C
V. Y. C
J8002
L-V
J8003
R-V
L. R
IC8001, 8002
INPUT SELECT
IC8006
AMP
J8502
AUDIO IN
L-V
R-V
L. R
J8503
AUDIO OUT
L-V
R-V
L. R
L. R
R. G. B
R. G. B
IFB-B
BC
IC4002
AUDIO CONTROL
SP L. R
MOTOR CONTROL
MOTOR DRIVE
FOCUS ZOOM SHIFT
IFB-C
M
IC2409
BUF
IC2410
BUF
IC2501
IC2511
OSD DECODE
R. G. B. I
IC2601
OSD SCAN CONV.
IC2611
OSD ENCODE
IC2414
DUAL PORT RAM
IC2413
FLASH MEMORY
IC2607
IC2608
OSD FRAME MEMORY
IC2902
IC2906, 2907
IC2909, 2910
SERIAL I/F
IC2202
CPU
LAMP CONT
DATA BUS
CONTROL
IC2203
RAM
IC2206
ZERO POWER RAM
IC2207
PROGRAM FLASH
FOCUS. ZOOM. SHIFT
IC2301
I/F
CONTROL
CXP
IC2703
SIRCS DECODE
SDA
TO BA. BB. BC BOARD
CONTROL-S IN
CONTROL-S OUT
GAA, GAB, GB, GC (X5), GF, GM
AC IN
IC7201
SW REG (X4)
IC7201
SW REG
DC-DC CONV.
SUB 5V
18V (PRIME)
17V
13.5V
6.2V
AUDIO+B
D+5.2V
D+3.3V
D-5.2V
D-2V
LAMP (X4)
H
Q1-18
LED DRIVE
IC6301-6304
LED DRIVE
IC6001
IR RECEIVE
KEY IN MATRIX

OVERALL BLOCK


TO BA BOARD
VIA XA, BM BOARDS
CN8201
FLT ON/OFF
C28
INPUT A
P/R–Y/PR
G/Y
B/B–Y/PB
J8001
CN8001
R TERM
75
2
3
TO QB BOARD
VIA XA BOARD
CN8201
CVID–QBQA
C3
CN8002
G TERM
Y–QBQA
C6
CN8003
B TERM
C–QBQA
C9
IC8206
INPUT SWITCH
IC8207
INPUT SWITCH
IC8208
INPUT SWITCH
IN0
IN1
OUT
CONT
EN
RY8201
RY8202
RY8203
RY8204
RY8205
RY8206
RED–IFBQA
A5
B5
GRN–IFBQA
A8
B8
BLUE–IFBQA
A11
B11
TO IFB-B, IFB-C BOARDS
VIA XA BOARD
BUFFER
Q8401
Q8402
Q8403
FL8401
FL8402
FL8403
LPF
Q8404
Q8405
Q8406
IC8401
IC8402
IC8403
RELAY
DRIVE
Q8203.8204
IC8215
IC8216
IC8217
RED–QABA
A18
B18
C18
GRN–QABA
A22
B22
C22
BLUE–QABA
A26
B26
C26
J501
J502
J503
TO M, IFB-B BOARDS
VIA XA, BM BOARDS
TO M, IFB-C BOARDS
VIA XA, BM BOARDS
B–SEL
B20
C–SEL
C20
IC8203
RELAY
DRIVER
Q8201,8202
TO BA BOARD
VIA, XA, BM BOARDS
CV/OTHER
B24
SV/OTHER
C24
IC8204
BC/OTHER
BC–FV/OTHER
2/2
IC8202
BC-FV-IN/OTHER
FV/OTHER
TO M, IFB-B BOARDS
VIA XA, BM BOARDS
TO M BOARD
VIA XA, BM BOARDS
IN/OUT-B
A20
A24
IC8212
LATCH AMP
IC8213
LATCH AMP
IC8214
LATCH AMP
IN
OUT
SHDN
RED–QAIFB
A4
B4
GRN–QAIFB
A7
B7
BLUE–QAIFB
A10
B10
TO IFB-B BOARD
VIA XA BOARD
CN8201
HC2-QABA
C16
VD2-QABA
C14
TO BA BOARD
VIA XA, BM BOARDS
RY8207
RELAY
DRIVER
Q8205,8206
IC8008
BUFFER
HS2
VS2
HC–IFBQA
C12
VD–IFBQA
C13
IC8201
+13.5V
9V REG
+9V
IC8205
+6.2V
5V REG
+5V
I
O

QA BLOCK (1/2)


INPUT A
H SYNC/HD
VD
CN8004
V TERM
75
2
3
J8001
DET
Q8001,8005,8006
IC8003(2/2)
BUFFER
IC8005
COMPARATOR
OUT2
IN2–
IN2+
IN1–
IN1+
OUT1
VCC
IC8009
COMPARATOR
IN1+
OUT1
VCC
IN1–
BUFFER
Q8016,8017
Q8011–8014
BUFFER
Q8015
IC8007(1/2)
BUFFER
CN8005
V TERM
75
J8001
DET
Q8002,8007,8008
IC8003(1/2)
IC8008(1/8–6/8)
BUFFER
HS2
VS2
1/2
CN8201
B15 HC3–QABA
C30 SYNCSW1
C29 SYNCSW0
A12 HC-QAIFB
A13 VD-QAIFB
TO BA BOARD
VIA XA, BM BOARD
TO IFB-B BOARD
VIA XA BOARD
SW0
SW1
ENA
INA0
INA1
INA2
YA
YB
ENB
INB0
INB1
INB2
IC8010
INPUT SELECTOR
1/2 BC–FV/OTHER
POWER SW
Q8018–8020
+5V
IC8002
INPUT SELECTOR
L–V
R–V
J8002
J8003
AULI-V
AULI-IFB
AURI-V
ARRI-IFB
X0
X1
X2
Y0
Y1
Y2
SW0
SW1
X
Y
IC8004(1/2)
AUDIO AMP
IC8004(2/2)
AUDIO AMP
A32 AUL-QABC
C32 AUR-QABC
TO BC BOARD
VIA XA, BM BOARDS
AULI-IFB
AURI-IFB
A1 AUL-IFBQA
A2 AUR-IFBQA
TO IFB-B, IFB-C BOARDS
VIA XA, BM BOARDS
AULI-V
AURI-V
C1 AUL-QBQA
C2 AUR-QBQA
TO QB BOARD
VIA XA BOARD
1/2 FV/OTHER
1/2 BC/OTHER
IC8001
INPUT SELECTOR
X0
Z0
SWX
SWZ
X
Z
IC8006(1/2)
AUDIO AMP
IC8006(2/2)
AUDIO AMP
B1 AUL–QAIFB
B2 AUR–QAIFB
TO IFB-B BOARD
VIA XA, BM BOARDS
1/2 BC-FV-IN/OTHER

QA BLOCK (2/2)

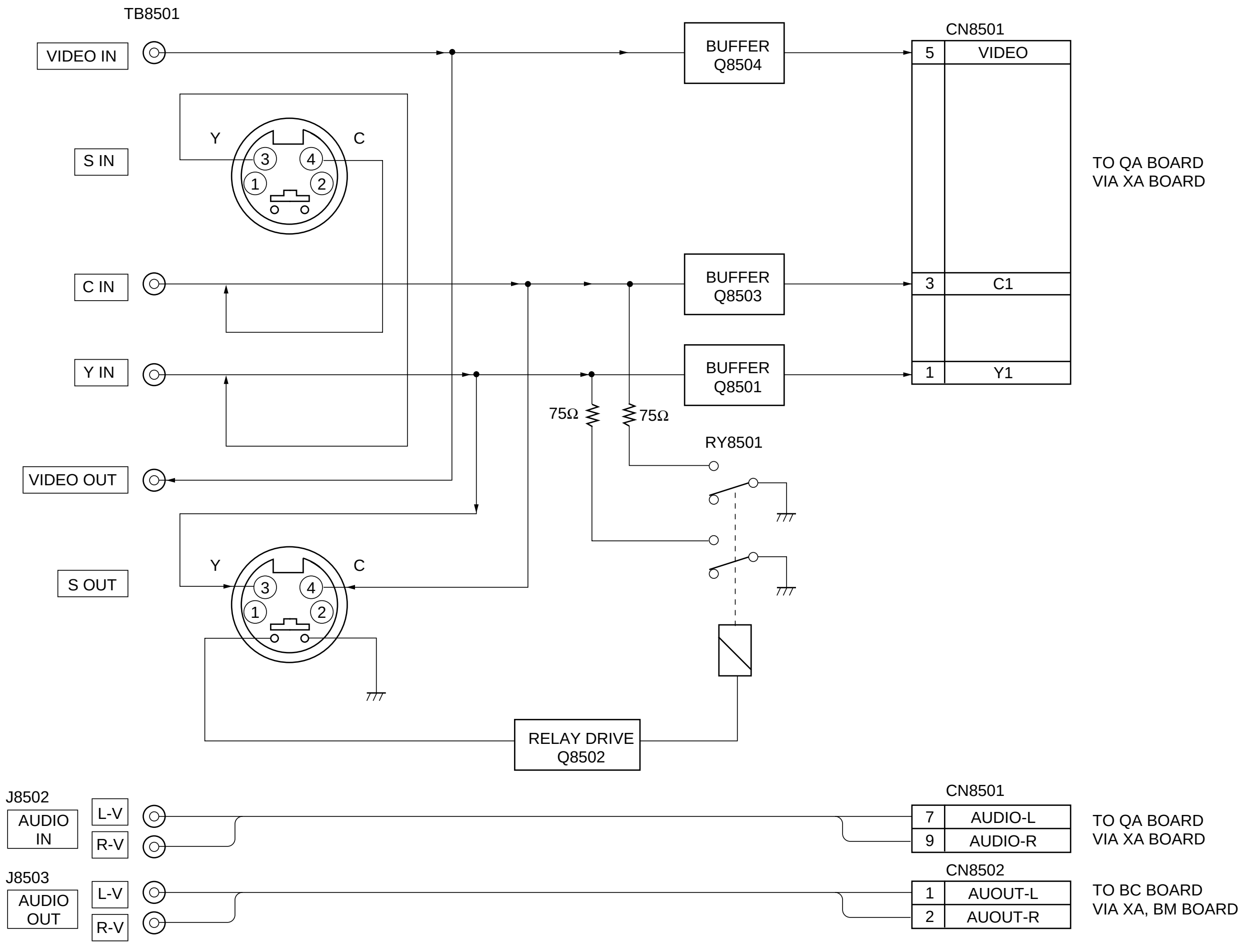
1

2

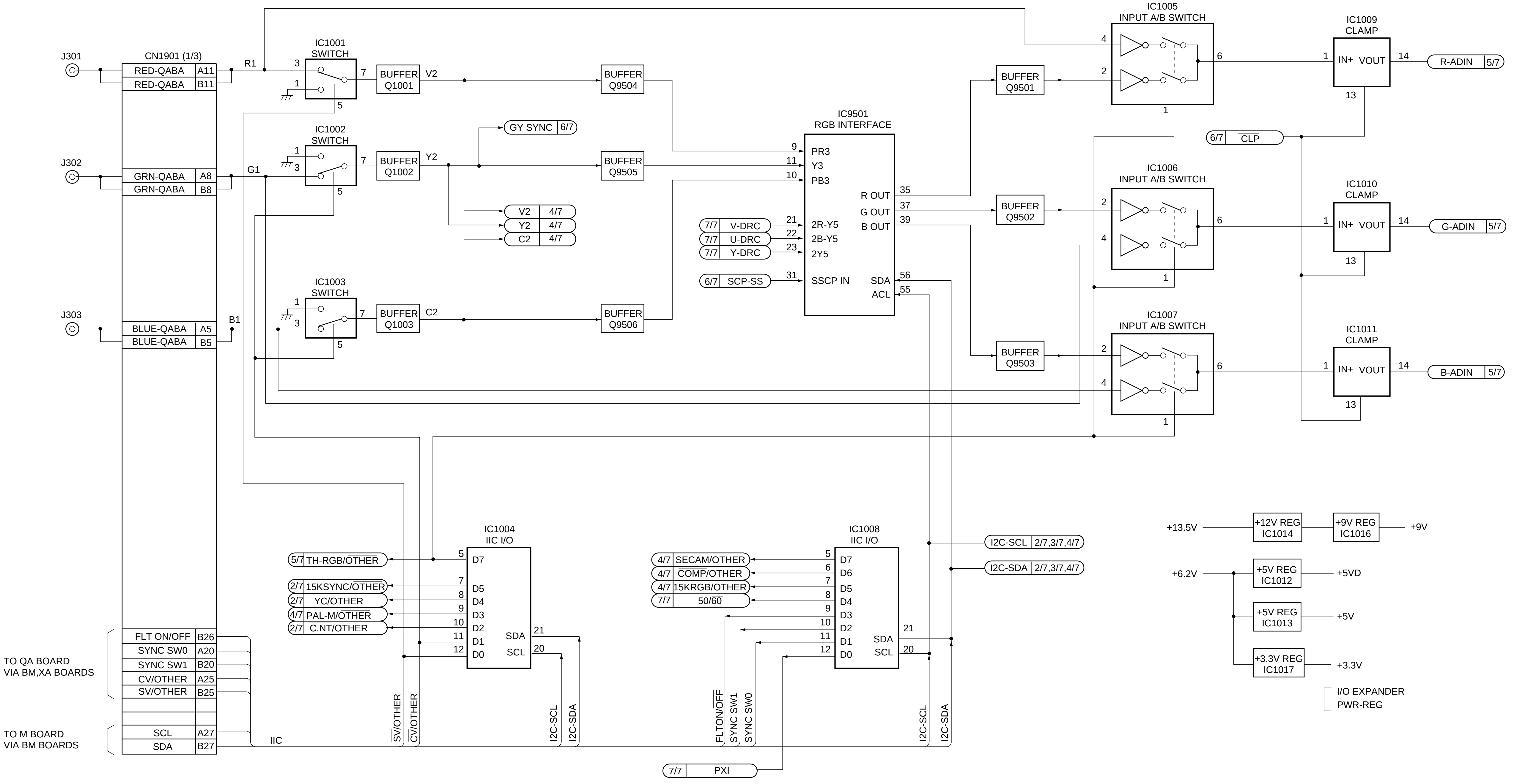
3

4

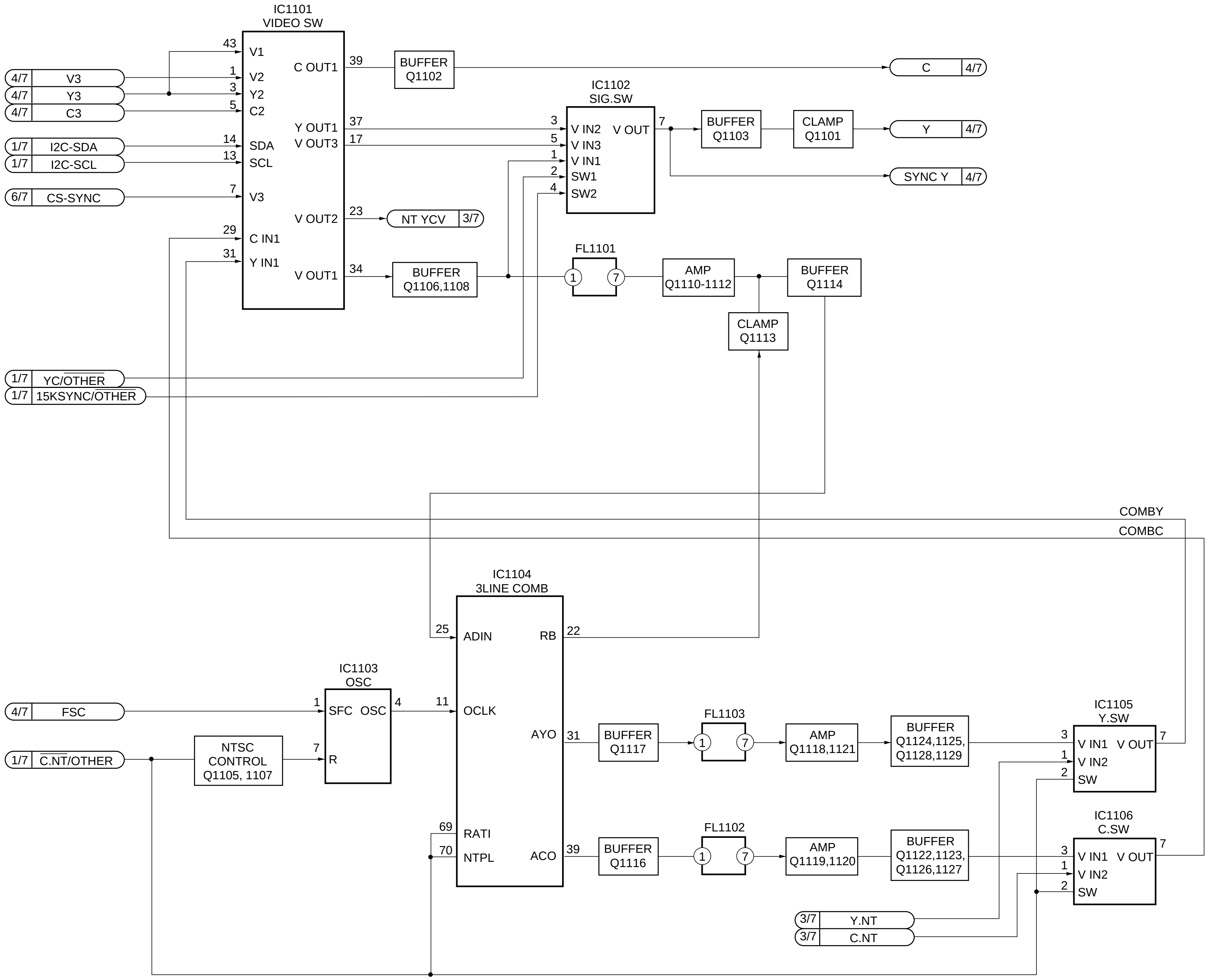
5


TB8501
VIDEO IN
S IN
Y
C
3
4
1
2
C IN
Y IN
VIDEO OUT
S OUT
Y
C
3
4
1
2
75Ω
75Ω
BUFFER
Q8504
BUFFER
Q8503
BUFFER
Q8501
RY8501
RELAY DRIVE
Q8502
CN8501
5
VIDEO
3
C1
1
Y1
TO QA BOARD
VIA XA BOARD
J8502
AUDIO
IN
L-V
R-V
J8503
AUDIO
OUT
L-V
R-V
CN8501
7
AUDIO-L
9
AUDIO-R
TO QA BOARD
VIA XA BOARD
CN8502
1
AUOUT-L
2
AUOUT-R
TO BC BOARD
VIA XA, BM BOARD

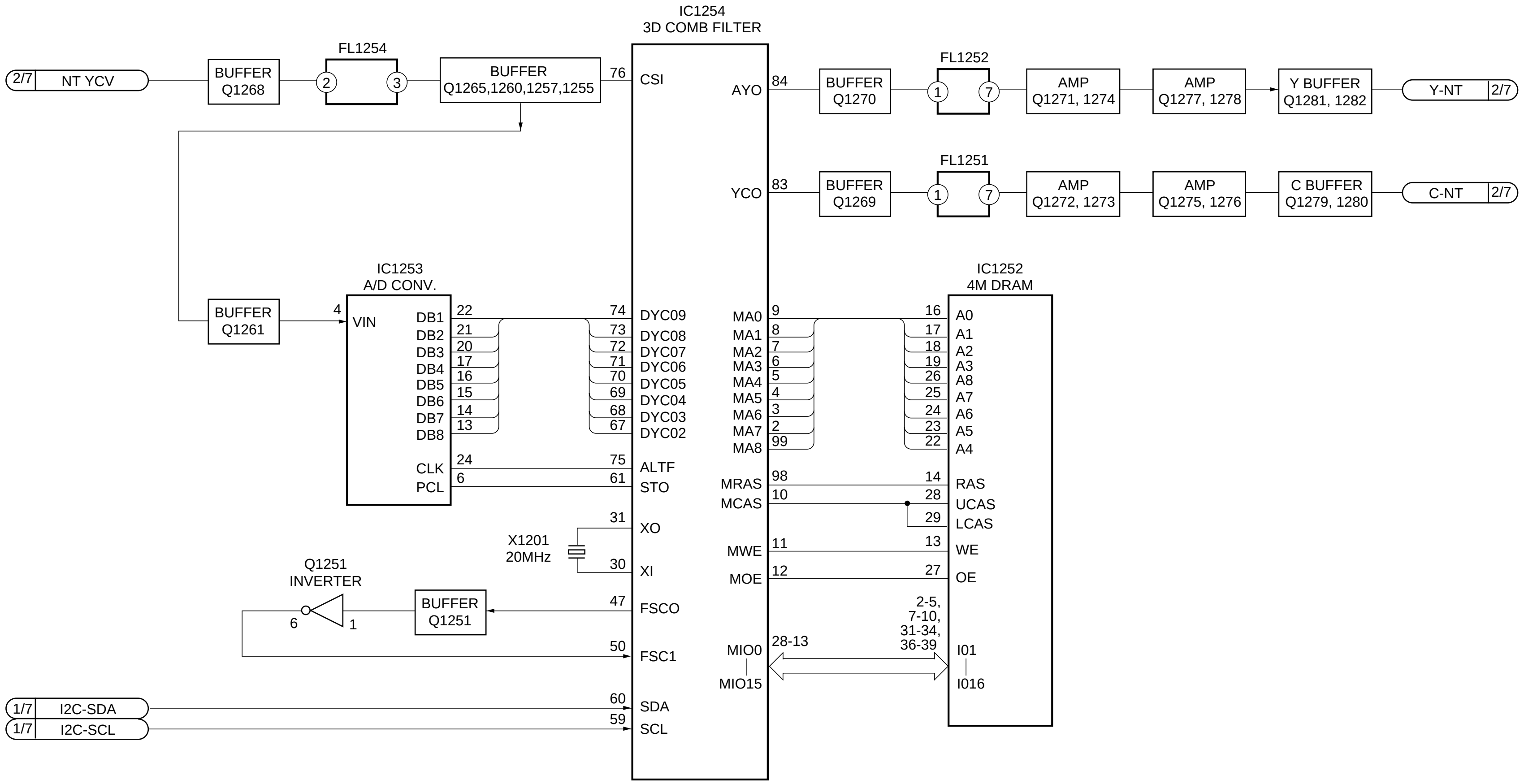
QB BLOCK


J301
J302
J303
CN1901 (1/3)
RED-QABA A11
RED-QABA B11
GRN-QABA A8
GRN-QABA B8
BLUE-QABA A5
BLUE-QABA B5
FLT ON/OFF B26
SYNC SW0 A20
SYNC SW1 B20
CV/OTHER A25
SV/OTHER B25
SCL A27
SDA B27
TO QA BOARD
VIA BM,XA BOARDS
TO M BOARD
VIA BM BOARDS
IIC
R1
G1
B1
IC1001
SWITCH
IC1002
SWITCH
IC1003
SWITCH
BUFFER Q1001
BUFFER Q1002
BUFFER Q1003
V2
Y2
C2
GY SYNC 6/7
V2 4/7
Y2 4/7
C2 4/7
BUFFER Q9504
BUFFER Q9505
BUFFER Q9506
IC9501
RGB INTERFACE
PR3
Y3
PB3
R OUT
G OUT
B OUT
2R-Y5
2B-Y5
2Y5
SSCP IN
SDA
ACL
7/7 V-DRC
7/7 U-DRC
7/7 Y-DRC
6/7 SCP-SS
BUFFER Q9501
BUFFER Q9502
BUFFER Q9503
IC1005
INPUT A/B SWITCH
IC1006
INPUT A/B SWITCH
IC1007
INPUT A/B SWITCH
6/7 CLP
IC1009
CLAMP
IC1010
CLAMP
IC1011
CLAMP
IN+ VOUT
R-ADIN 5/7
G-ADIN 5/7
B-ADIN 5/7
IC1004
IIC I/O
D7
D5
D4
D3
D2
D1
D0
SDA
SCL
5/7 TH-RGB/OTHER
2/7 15KSYNC/OTHER
2/7 YC/OTHER
4/7 PAL-M/OTHER
2/7 C.NT/OTHER
SV/OTHER
CV/OTHER
I2C-SCL
I2C-SDA
IC1008
IIC I/O
D7
D6
D5
D4
D3
D2
D1
D0
SDA
SCL
4/7 SECAM/OTHER
4/7 COMP/OTHER
4/7 15KRGB/OTHER
7/7 50/60
FLTON/OFF
SYNC SW1
SYNC SW0
I2C-SCL
I2C-SDA
7/7 PXI
I2C-SCL 2/7,3/7,4/7
I2C-SDA 2/7,3/7,4/7
+13.5V
+12V REG IC1014
+9V REG IC1016
+9V
+6.2V
+5V REG IC1012
+5VD
+5V REG IC1013
+5V
+3.3V REG IC1017
+3.3V
I/O EXPANDER
PWR-REG

BA BLOCK (1/7)


IC1101
VIDEO SW
V1
V2
Y2
C2
SDA
SCL
V3
C IN1
Y IN1
C OUT1
Y OUT1
V OUT3
V OUT2
V OUT1
43
1
3
5
14
13
7
29
31
39
37
17
23
34
4/7 V3
4/7 Y3
4/7 C3
1/7 I2C-SDA
1/7 I2C-SCL
6/7 CS-SYNC
1/7 YC/OTHER
1/7 15KSYNC/OTHER
BUFFER
Q1102
C 4/7
IC1102
SIG.SW
V IN2
V IN3
V IN1
SW1
SW2
V OUT
3
5
1
2
4
7
BUFFER
Q1103
CLAMP
Q1101
Y 4/7
SYNC Y 4/7
NT YCV 3/7
BUFFER
Q1106,1108
FL1101
1
7
AMP
Q1110-1112
BUFFER
Q1114
CLAMP
Q1113
COMBY
COMBC
IC1104
3LINE COMB
ADIN
RB
OCLK
AYO
RATI
NTPL
ACO
25
22
11
31
69
70
39
IC1103
OSC
SFC
OSC
R
1
4
7
4/7 FSC
1/7 C.NT/OTHER
NTSC
CONTROL
Q1105, 1107
BUFFER
Q1117
FL1103
1
7
AMP
Q1118,1121
BUFFER
Q1124,1125,
Q1128,1129
BUFFER
Q1116
FL1102
1
7
AMP
Q1119,1120
BUFFER
Q1122,1123,
Q1126,1127
IC1105
Y.SW
V IN1
V IN2
SW
V OUT
3
1
2
7
IC1106
C.SW
V IN1
V IN2
SW
V OUT
3
1
2
7
3/7 Y.NT
3/7 C.NT

BA BLOCK (2/7)


IC1254
3D COMB FILTER
2/7
NT YCV
BUFFER
Q1268
FL1254
2
3
BUFFER
Q1265,1260,1257,1255
76
CSI
AYO
84
BUFFER
Q1270
FL1252
1
7
AMP
Q1271, 1274
AMP
Q1277, 1278
Y BUFFER
Q1281, 1282
Y-NT
2/7
YCO
83
BUFFER
Q1269
FL1251
1
7
AMP
Q1272, 1273
AMP
Q1275, 1276
C BUFFER
Q1279, 1280
C-NT
2/7
IC1253
A/D CONV.
BUFFER
Q1261
4
VIN
DB1 22
DB2 21
DB3 20
DB4 17
DB5 16
DB6 15
DB7 14
DB8 13
74 DYC09
73 DYC08
72 DYC07
71 DYC06
70 DYC05
69 DYC04
68 DYC03
67 DYC02
CLK 24
PCL 6
75 ALTF
61 STO
31 XO
X1201
20MHz
30 XI
Q1251
INVERTER
6
1
BUFFER
Q1251
47 FSCO
50 FSC1
1/7
I2C-SDA
1/7
I2C-SCL
60 SDA
59 SCL
IC1252
4M DRAM
MA0 9
MA1 8
MA2 7
MA3 6
MA4 5
MA5 4
MA6 3
MA7 2
MA8 99
16 A0
17 A1
18 A2
19 A3
26 A8
25 A7
24 A6
23 A5
22 A4
MRAS 98
MCAS 10
14 RAS
28 UCAS
29 LCAS
MWE 11
13 WE
MOE 12
27 OE
MIO0
MIO15
28-13
2-5,
7-10,
31-34,
36-39
I01
I016

BA BLOCK (3/7)

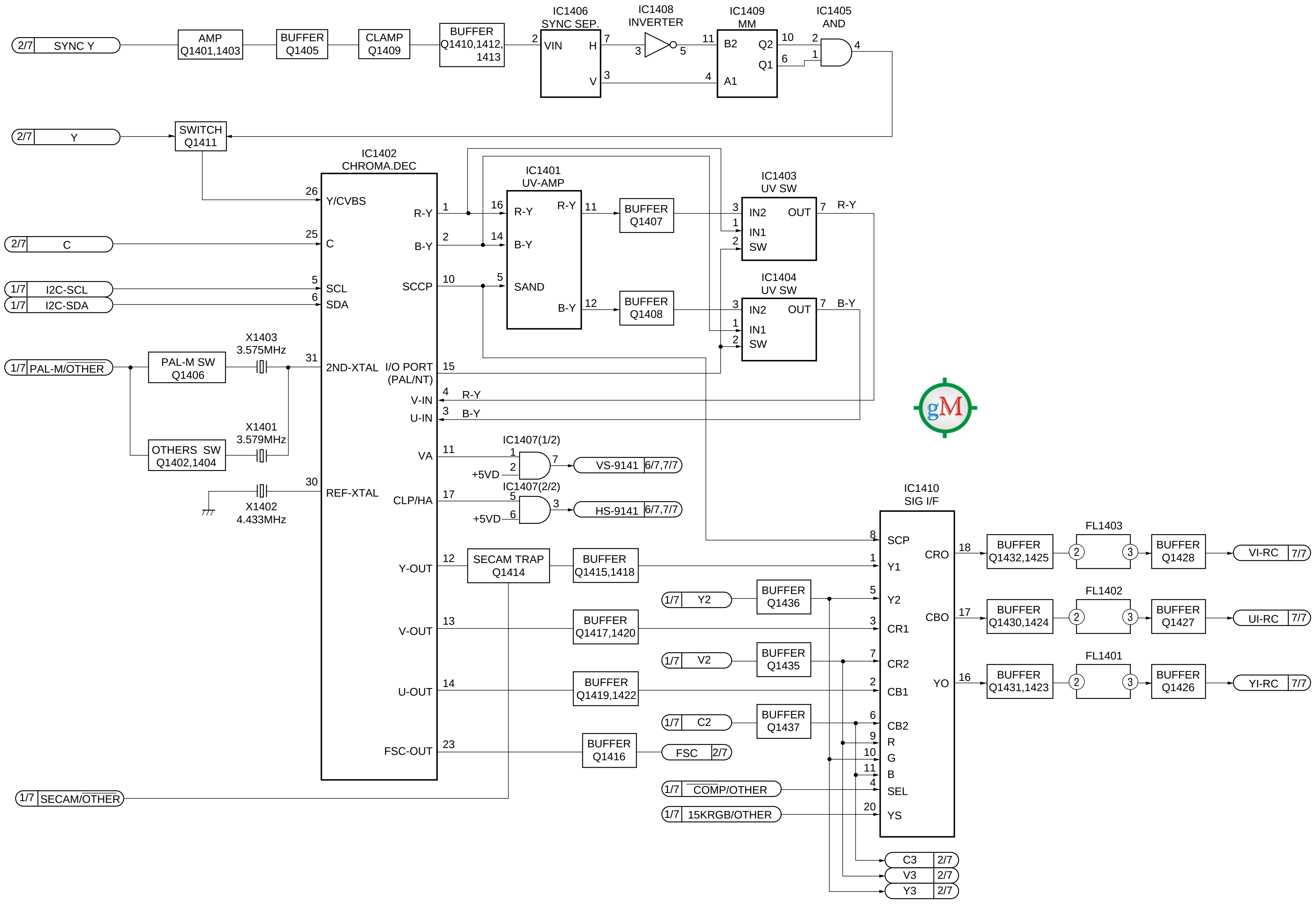
1

2

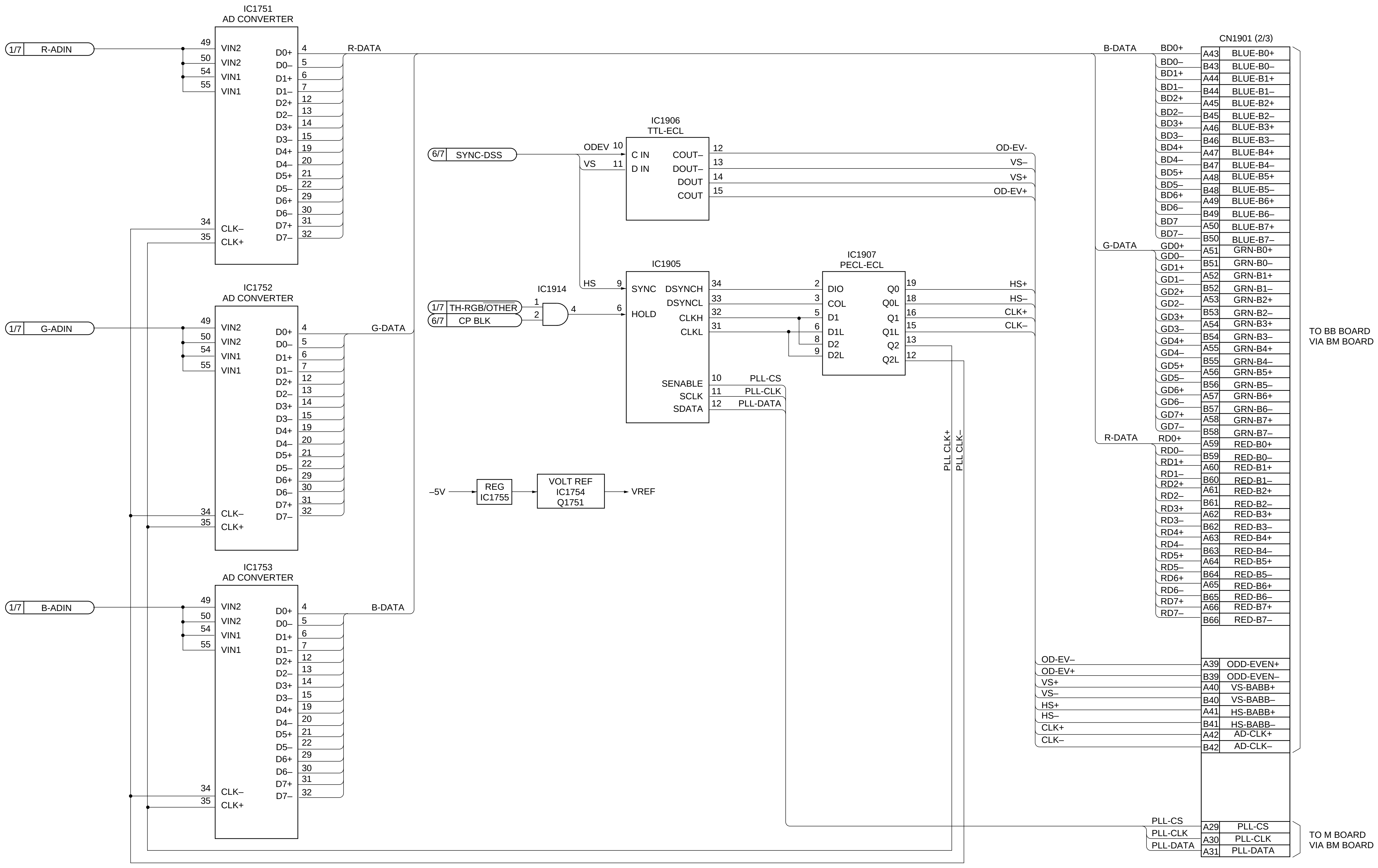
3

4

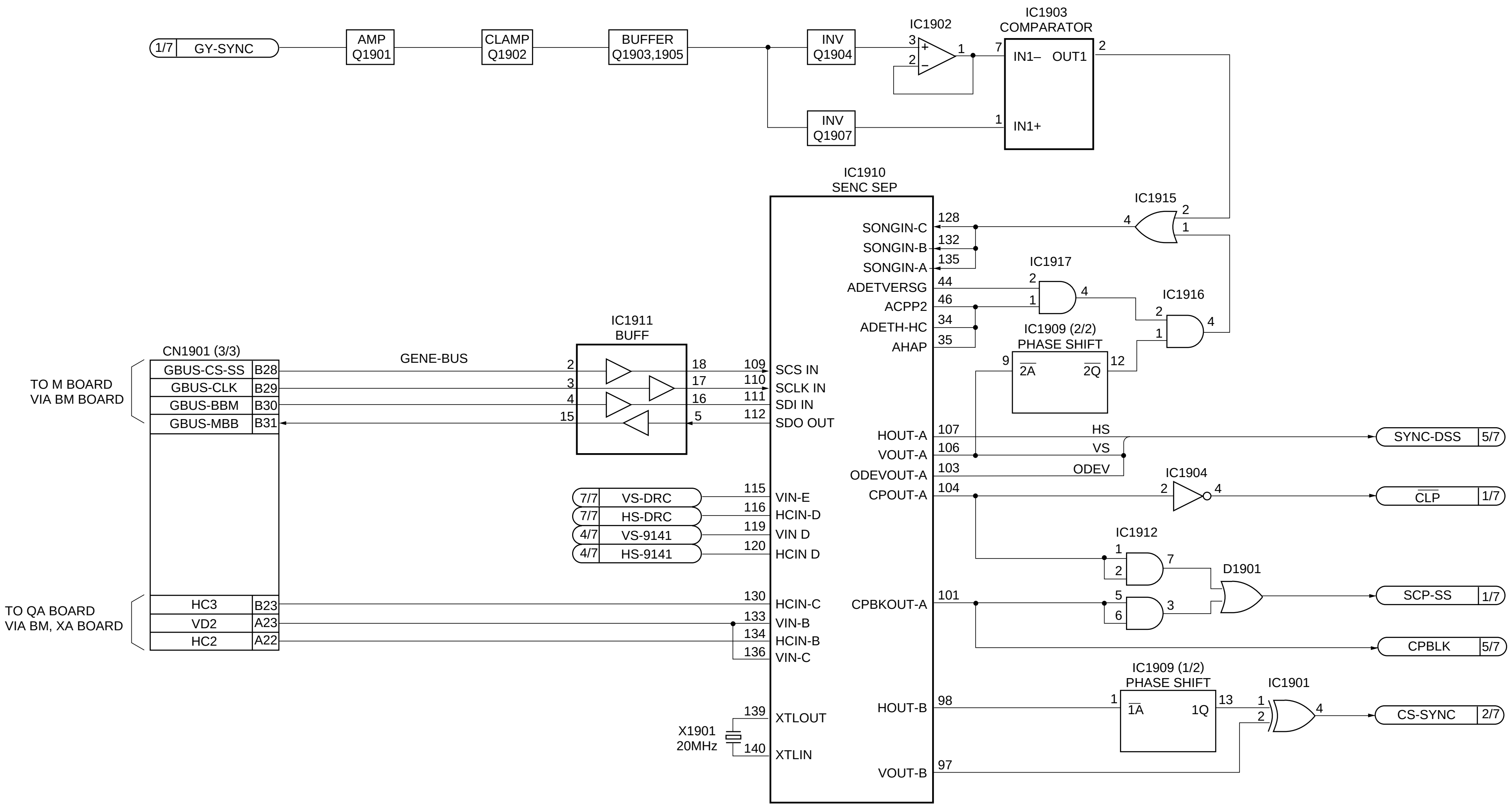
5


2/7 SYNC Y
AMP Q1401,1403
BUFFER Q1405
CLAMP Q1409
BUFFER Q1410,1412, 1413
IC1406 SYNC SEP.
VIN
H
V
IC1408 INVERTER
IC1409 MM
B2
Q2
Q1
A1
IC1405 AND
2/7 Y
SWITCH Q1411
IC1402 CHROMA.DEC
Y/CVBS
C
SCL
SDA
2ND-XTAL
REF-XTAL
R-Y
B-Y
SCCP
I/O PORT (PAL/NT)
V-IN
U-IN
VA
CLP/HA
Y-OUT
V-OUT
U-OUT
FSC-OUT
2/7 C
1/7 I2C-SCL
1/7 I2C-SDA
1/7 PAL-M/OTHER
PAL-M SW Q1406
OTHERS SW Q1402,1404
X1403 3.575MHz
X1401 3.579MHz
X1402 4.433MHz
IC1401 UV-AMP
R-Y
B-Y
SAND
BUFFER Q1407
BUFFER Q1408
IC1403 UV SW
IC1404 UV SW
IN2
IN1
SW
OUT
R-Y
B-Y
IC1407(1/2)
IC1407(2/2)
+5VD
VS-9141 6/7,7/7
HS-9141 6/7,7/7
SECAM TRAP Q1414
BUFFER Q1415,1418
BUFFER Q1417,1420
BUFFER Q1419,1422
BUFFER Q1416
1/7 Y2
1/7 V2
1/7 C2
BUFFER Q1436
BUFFER Q1435
BUFFER Q1437
FSC 2/7
1/7 COMP/OTHER
1/7 15KRGB/OTHER
1/7 SECAM/OTHER
IC1410 SIG I/F
SCP
Y1
Y2
CR1
CR2
CB1
CB2
R
G
B
SEL
YS
CRO
CBO
YO
BUFFER Q1432,1425
BUFFER Q1430,1424
BUFFER Q1431,1423
FL1403
FL1402
FL1401
BUFFER Q1428
BUFFER Q1427
BUFFER Q1426
VI-RC 7/7
UI-RC 7/7
YI-RC 7/7
C3 2/7
V3 2/7
Y3 2/7

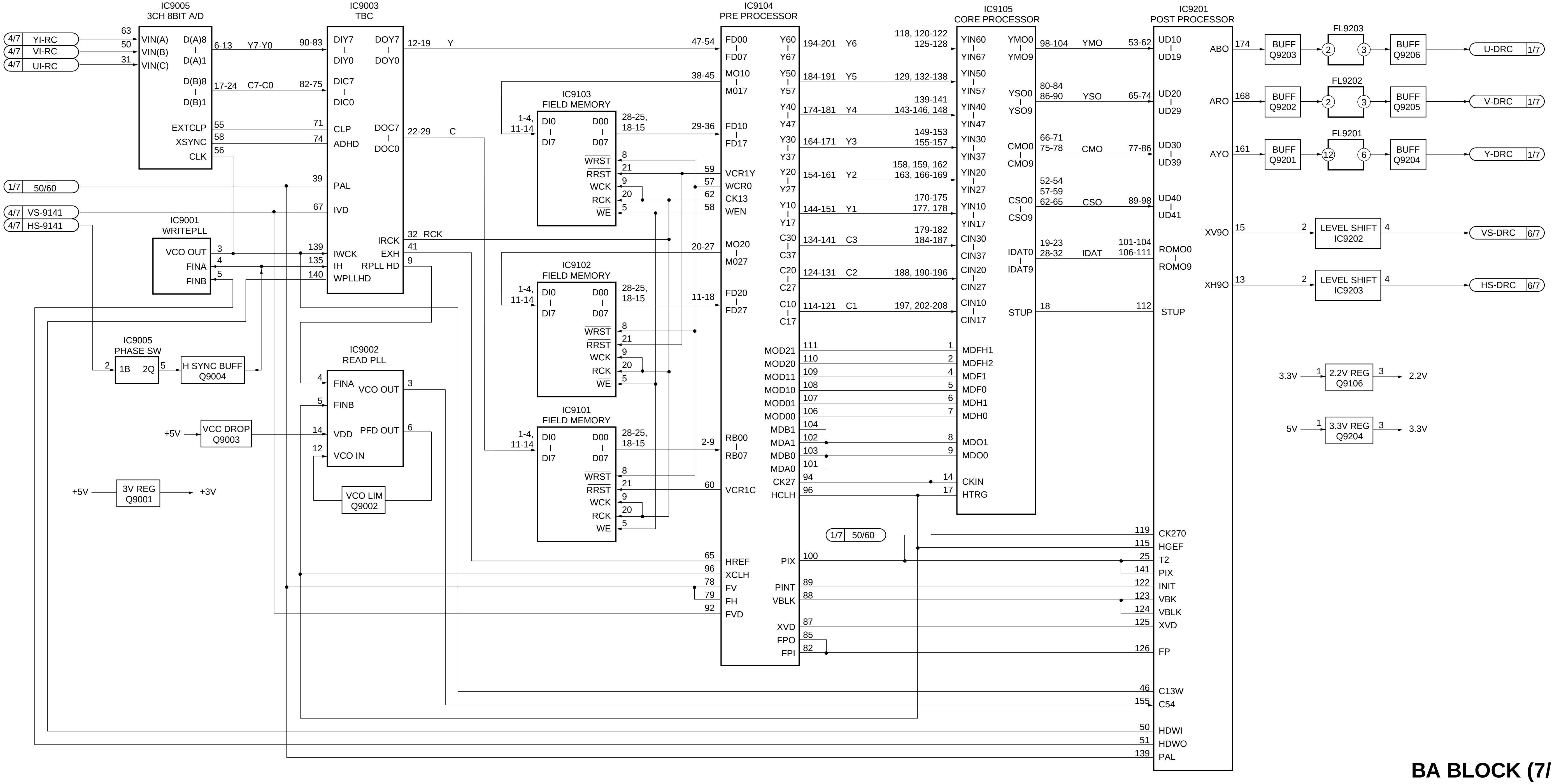
BA BLOCK (4/7)


IC1751
AD CONVERTER
IC1752
AD CONVERTER
IC1753
AD CONVERTER
1/7 R-ADIN
1/7 G-ADIN
1/7 B-ADIN
VIN2
VIN1
CLK–
CLK+
D0+
D0–
D1+
D1–
D2+
D2–
D3+
D3–
D4+
D4–
D5+
D5–
D6+
D6–
D7+
D7–
R-DATA
G-DATA
B-DATA
IC1906
TTL-ECL
6/7 SYNC-DSS
ODEV
VS
C IN
D IN
COUT–
DOUT–
DOUT
COUT
OD-EV-
VS–
VS+
OD-EV+
IC1905
HS
SYNC
HOLD
DSYNCH
DSYNCL
CLKH
CLKL
SENABLE
SCLK
SDATA
PLL-CS
PLL-CLK
PLL-DATA
IC1914
1/7 TH-RGB/OTHER
6/7 CP BLK
IC1907
PECL-ECL
DIO
COL
D1
D1L
D2
D2L
Q0
Q0L
Q1
Q1L
Q2
Q2L
HS+
HS–
CLK+
CLK–
PLL CLK+
PLL CLK–
–5V
REG
IC1755
VOLT REF
IC1754
Q1751
VREF
CN1901 (2/3)
BD0+ … BD7–
BLUE-B0+ … BLUE-B7–
GD0+ … GD7–
GRN-B0+ … GRN-B7–
RD0+ … RD7–
RED-B0+ … RED-B7–
A39 ODD-EVEN+
B39 ODD-EVEN–
A40 VS-BABB+
B40 VS-BABB–
A41 HS-BABB+
B41 HS-BABB–
A42 AD-CLK+
B42 AD-CLK–
TO BB BOARD
VIA BM BOARD
A29 PLL-CS
A30 PLL-CLK
A31 PLL-DATA
TO M BOARD
VIA BM BOARD

BA BLOCK (5/7)


1/7
GY-SYNC
AMP
Q1901
CLAMP
Q1902
BUFFER
Q1903,1905
INV
Q1904
IC1902
IC1903
COMPARATOR
IN1–
OUT1
IN1+
INV
Q1907
IC1910
SENC SEP
SONGIN-C
SONGIN-B
SONGIN-A
ADETVERSG
ACPP2
ADETH-HC
AHAP
128
132
135
44
46
34
35
IC1915
IC1917
IC1916
IC1909 (2/2)
PHASE SHIFT
2A
2Q
CN1901 (3/3)
GENE-BUS
IC1911
BUFF
TO M BOARD
VIA BM BOARD
GBUS-CS-SS
B28
GBUS-CLK
B29
GBUS-BBM
B30
GBUS-MBB
B31
SCS IN
SCLK IN
SDI IN
SDO OUT
109
110
111
112
HOUT-A
VOUT-A
ODEVOUT-A
CPOUT-A
107
106
103
104
HS
VS
ODEV
SYNC-DSS
5/7
IC1904
CLP
1/7
7/7
VS-DRC
7/7
HS-DRC
4/7
VS-9141
4/7
HS-9141
115
116
119
120
VIN-E
HCIN-D
VIN D
HCIN D
IC1912
D1901
SCP-SS
1/7
CPBKOUT-A
101
CPBLK
5/7
TO QA BOARD
VIA BM, XA BOARD
HC3
B23
VD2
A23
HC2
A22
130
133
134
136
HCIN-C
VIN-B
HCIN-B
VIN-C
IC1909 (1/2)
PHASE SHIFT
1A
1Q
IC1901
CS-SYNC
2/7
HOUT-B
98
X1901
20MHz
139
XTLOUT
140
XTLIN
VOUT-B
97

BA BLOCK (6/7)


IC9005
3CH 8BIT A/D
4/7 YI-RC
4/7 VI-RC
4/7 UI-RC
VIN(A)
VIN(B)
VIN(C)
D(A)8
D(A)1
D(B)8
D(B)1
EXTCLP
XSYNC
CLK
6-13 Y7-Y0 90-83
17-24 C7-C0 82-75
IC9003
TBC
DIY7
DIY0
DIC7
DIC0
CLP
ADHD
PAL
IVD
IWCK
IH
WPLLHD
DOY7
DOY0
DOC7
DOC0
IRCK
EXH
RPLL HD
12-19 Y
22-29 C
32 RCK
1/7 50/60
4/7 VS-9141
4/7 HS-9141
IC9001
WRITEPLL
VCO OUT
FINA
FINB
IC9005
PHASE SW
1B
2Q
H SYNC BUFF
Q9004
IC9002
READ PLL
FINA
FINB
VDD
VCO IN
VCO OUT
PFD OUT
+5V
VCC DROP
Q9003
VCO LIM
Q9002
+5V
3V REG
Q9001
+3V
IC9103
FIELD MEMORY
IC9102
FIELD MEMORY
IC9101
FIELD MEMORY
DI0
DI7
D00
D07
WRST
RRST
WCK
RCK
WE
1-4,
11-14
28-25,
18-15
IC9104
PRE PROCESSOR
FD00
FD07
MO10
M017
FD10
FD17
VCR1Y
WCR0
CK13
WEN
MO20
M027
FD20
FD27
RB00
RB07
VCR1C
HREF
XCLH
FV
FH
FVD
Y60
Y67
Y50
Y57
Y40
Y47
Y30
Y37
Y20
Y27
Y10
Y17
C30
C37
C20
C27
C10
C17
MOD21
MOD20
MOD11
MOD10
MOD01
MOD00
MDB1
MDA1
MDB0
MDA0
CK27
HCLH
PIX
PINT
VBLK
XVD
FPO
FPI
194-201 Y6
184-191 Y5
174-181 Y4
164-171 Y3
154-161 Y2
144-151 Y1
134-141 C3
124-131 C2
114-121 C1
118, 120-122
125-128
129, 132-138
139-141
143-146, 148
149-153
155-157
158, 159, 162
163, 166-169
170-175
177, 178
179-182
184-187
188, 190-196
197, 202-208
IC9105
CORE PROCESSOR
YIN60
YIN67
YIN50
YIN57
YIN40
YIN47
YIN30
YIN37
YIN20
YIN27
YIN10
YIN17
CIN30
CIN37
CIN20
CIN27
CIN10
CIN17
MDFH1
MDFH2
MDF1
MDF0
MDH1
MDH0
MDO1
MDO0
CKIN
HTRG
YMO0
YMO9
YSO0
YSO9
CMO0
CMO9
CSO0
CSO9
IDAT0
IDAT9
STUP
98-104 YMO 53-62
80-84
86-90 YSO 65-74
66-71
75-78 CMO 77-86
52-54
57-59
62-65 CSO 89-98
19-23
28-32 IDAT 101-104
106-111
IC9201
POST PROCESSOR
UD10
UD19
UD20
UD29
UD30
UD39
UD40
UD41
ROMO0
ROMO9
STUP
CK270
HGEF
T2
PIX
INIT
VBK
VBLK
XVD
FP
C13W
C54
HDWI
HDWO
PAL
ABO
ARO
AYO
XV9O
XH9O
1/7 50/60
BUFF
Q9203
BUFF
Q9202
BUFF
Q9201
FL9203
FL9202
FL9201
BUFF
Q9206
BUFF
Q9205
BUFF
Q9204
U-DRC 1/7
V-DRC 1/7
Y-DRC 1/7
LEVEL SHIFT
IC9202
LEVEL SHIFT
IC9203
VS-DRC 6/7
HS-DRC 6/7
3.3V
2.2V REG
Q9106
2.2V
5V
3.3V REG
Q9204
3.3V

BA BLOCK (7/7)

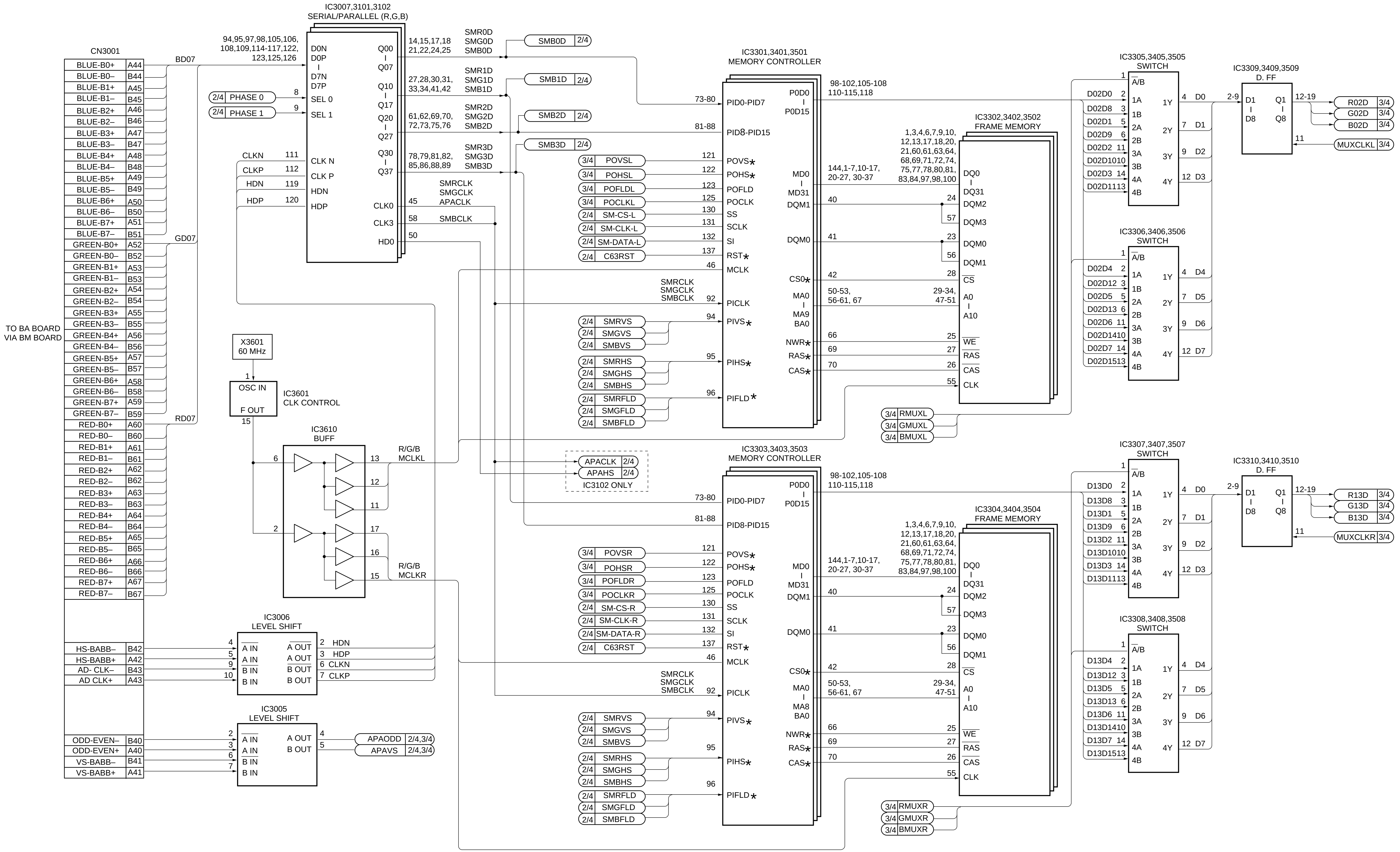
1

2

3

4

5


CN3001
TO BA BOARD
VIA BM BOARD
BLUE-B0+ A44
BLUE-B0– B44
BLUE-B1+ A45
BLUE-B1– B45
BLUE-B2+ A46
BLUE-B2– B46
BLUE-B3+ A47
BLUE-B3– B47
BLUE-B4+ A48
BLUE-B4– B48
BLUE-B5+ A49
BLUE-B5– B49
BLUE-B6+ A50
BLUE-B6– B50
BLUE-B7+ A51
BLUE-B7– B51
GREEN-B0+ A52
GREEN-B0– B52
GREEN-B1+ A53
GREEN-B1– B53
GREEN-B2+ A54
GREEN-B2– B54
GREEN-B3+ A55
GREEN-B3– B55
GREEN-B4+ A56
GREEN-B4– B56
GREEN-B5+ A57
GREEN-B5– B57
GREEN-B6+ A58
GREEN-B6– B58
GREEN-B7+ A59
GREEN-B7– B59
RED-B0+ A60
RED-B0– B60
RED-B1+ A61
RED-B1– B61
RED-B2+ A62
RED-B2– B62
RED-B3+ A63
RED-B3– B63
RED-B4+ A64
RED-B4– B64
RED-B5+ A65
RED-B5– B65
RED-B6+ A66
RED-B6– B66
RED-B7+ A67
RED-B7– B67
HS-BABB– B42
HS-BABB+ A42
AD- CLK– B43
AD CLK+ A43
ODD-EVEN– B40
ODD-EVEN+ A40
VS-BABB– B41
VS-BABB+ A41
BD07
GD07
RD07
IC3007,3101,3102
SERIAL/PARALLEL (R,G,B)
94,95,97,98,105,106,
108,109,114-117,122,
123,125,126
D0N
D0P
D7N
D7P
SEL 0
SEL 1
CLK N
CLK P
HDN
HDP
Q00
Q07
Q10
Q17
Q20
Q27
Q30
Q37
CLK0
CLK3
HD0
2/4 PHASE 0
2/4 PHASE 1
8
9
CLKN 111
CLKP 112
HDN 119
HDP 120
14,15,17,18
21,22,24,25
27,28,30,31,
33,34,41,42
61,62,69,70,
72,73,75,76
78,79,81,82,
85,86,88,89
SMR0D
SMG0D
SMB0D
SMR1D
SMG1D
SMB1D
SMR2D
SMG2D
SMB2D
SMR3D
SMG3D
SMB3D
SMB0D 2/4
SMB1D 2/4
SMB2D 2/4
SMB3D 2/4
45
58
50
SMRCLK
SMGCLK
APACLK
SMBCLK
X3601
60 MHz
IC3601
CLK CONTROL
OSC IN
F OUT
1
15
IC3610
BUFF
6
2
13
12
11
17
16
15
R/G/B
MCLKL
R/G/B
MCLKR
APACLK 2/4
APAHS 2/4
IC3102 ONLY
IC3006
LEVEL SHIFT
A IN
B IN
A OUT
B OUT
4
5
9
10
2 HDN
3 HDP
6 CLKN
7 CLKP
IC3005
LEVEL SHIFT
2
3
6
7
4
5
APAODD 2/4,3/4
APAVS 2/4,3/4
IC3301,3401,3501
MEMORY CONTROLLER
IC3303,3403,3503
MEMORY CONTROLLER
PID0-PID7
PID8-PID15
POVS★
POHS★
POFLD
POCLK
SS
SCLK
SI
RST★
MCLK
PICLK
PIVS★
PIHS★
PIFLD★
P0D0
P0D15
MD0
MD31
DQM1
DQM0
CS0★
MA0
MA9
MA8
BA0
NWR★
RAS★
CAS★
73-80
81-88
121
122
123
125
130
131
132
137
46
92
94
95
96
3/4 POVSL
3/4 POHSL
3/4 POFLDL
3/4 POCLKL
2/4 SM-CS-L
2/4 SM-CLK-L
2/4 SM-DATA-L
2/4 C63RST
3/4 POVSR
3/4 POHSR
3/4 POFLDR
3/4 POCLKR
2/4 SM-CS-R
2/4 SM-CLK-R
2/4 SM-DATA-R
2/4 C63RST
SMRCLK
SMGCLK
SMBCLK
2/4 SMRVS
2/4 SMGVS
2/4 SMBVS
2/4 SMRHS
2/4 SMGHS
2/4 SMBHS
2/4 SMRFLD
2/4 SMGFLD
2/4 SMBFLD
98-102,105-108
110-115,118
144,1-7,10-17,
20-27, 30-37
1,3,4,6,7,9,10,
12,13,17,18,20,
21,60,61,63,64,
68,69,71,72,74,
75,77,78,80,81,
83,84,97,98,100
40
41
42
50-53,
56-61, 67
29-34,
47-51
66
69
70
24
57
23
56
28
25
27
26
55
IC3302,3402,3502
FRAME MEMORY
IC3304,3404,3504
FRAME MEMORY
DQ0
DQ31
DQM2
DQM3
DQM0
DQM1
CS
A0
A10
WE
RAS
CAS
CLK
3/4 RMUXL
3/4 GMUXL
3/4 BMUXL
3/4 RMUXR
3/4 GMUXR
3/4 BMUXR
IC3305,3405,3505
SWITCH
IC3306,3406,3506
SWITCH
IC3307,3407,3507
SWITCH
IC3308,3408,3508
SWITCH
A/B
1A
1B
2A
2B
3A
3B
4A
4B
1Y
2Y
3Y
4Y
D02D0 2
D02D8 3
D02D1 5
D02D9 6
D02D2 11
D02D10 10
D02D3 14
D02D11 13
D02D4 2
D02D12 3
D02D5 5
D02D13 6
D02D6 11
D02D14 10
D02D7 14
D02D15 13
D13D0 2
D13D8 3
D13D1 5
D13D9 6
D13D2 11
D13D10 10
D13D3 14
D13D11 13
D13D4 2
D13D12 3
D13D5 5
D13D13 6
D13D6 11
D13D14 10
D13D7 14
D13D15 13
4 D0
7 D1
9 D2
12 D3
4 D4
7 D5
9 D6
12 D7
IC3309,3409,3509
D. FF
IC3310,3410,3510
D. FF
D1
D8
Q1
Q8
2-9
12-19
11
R02D 3/4
G02D 3/4
B02D 3/4
MUXCLKL 3/4
R13D 3/4
G13D 3/4
B13D 3/4
MUXCLKR 3/4

BB BLOCK (1/4)

A B C D E F G H

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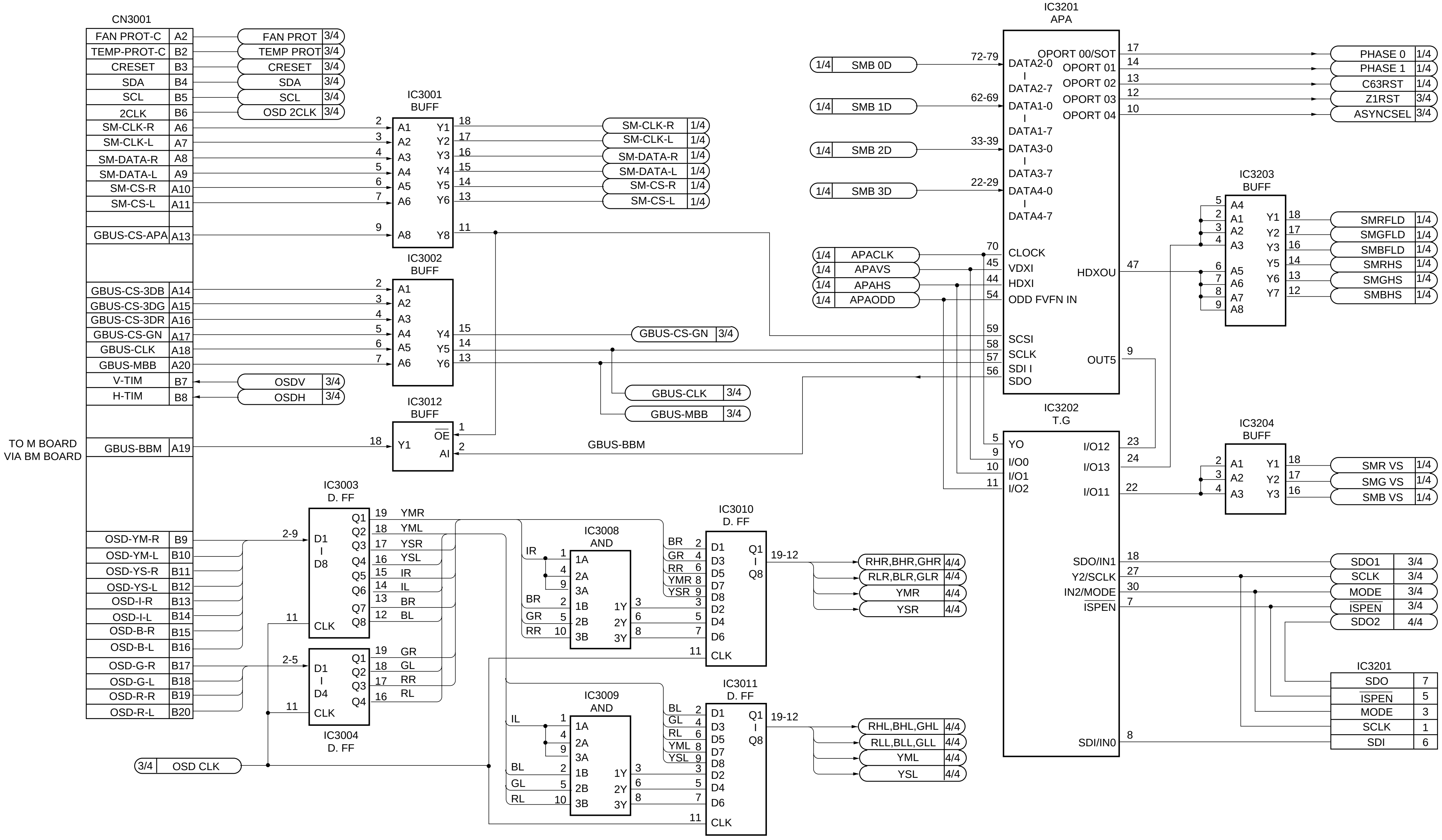
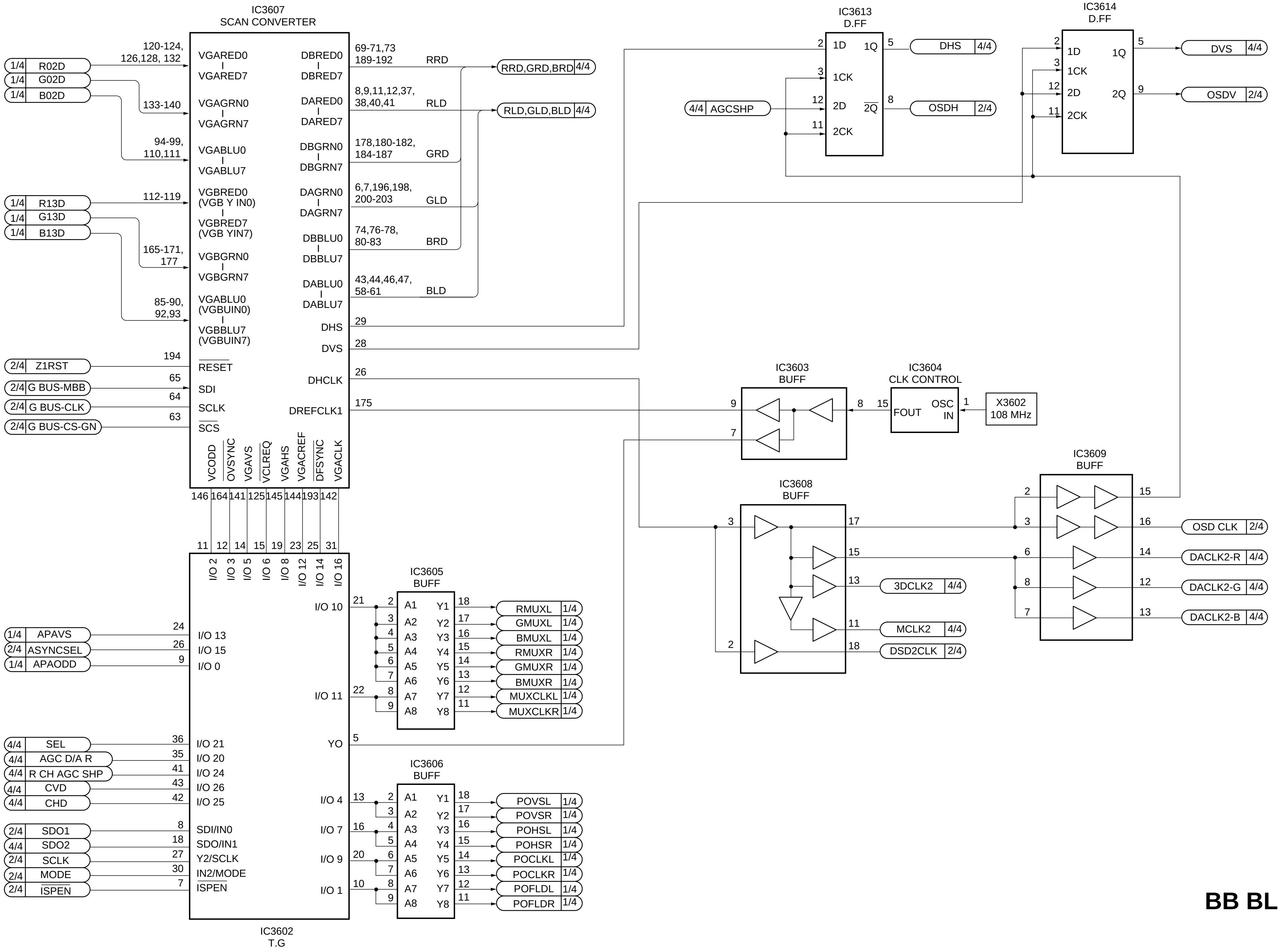
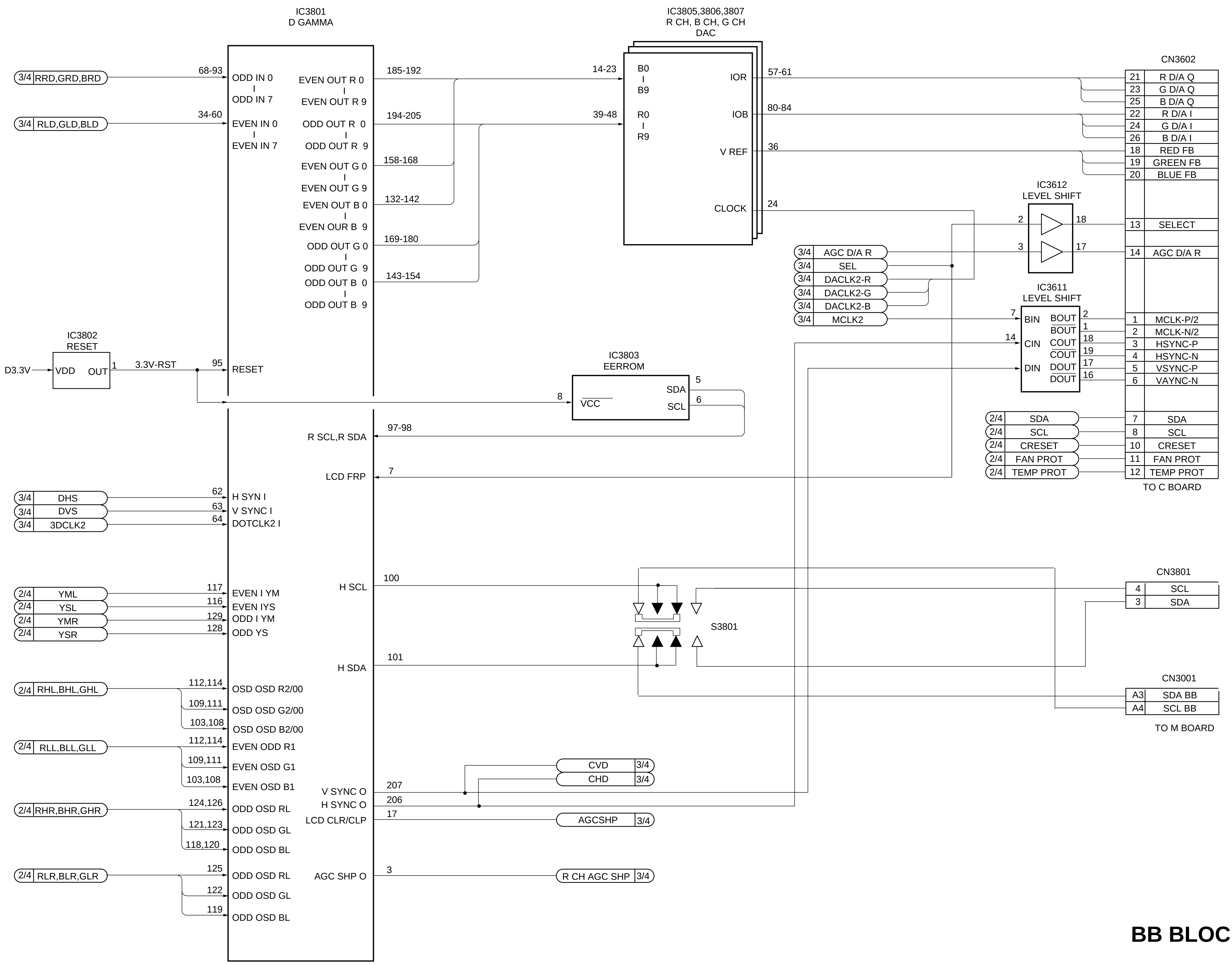

CN3001
FAN PROT-C A2
TEMP-PROT-C B2
CRESET B3
SDA B4
SCL B5
2CLK B6
SM-CLK-R A6
SM-CLK-L A7
SM-DATA-R A8
SM-DATA-L A9
SM-CS-R A10
SM-CS-L A11
GBUS-CS-APA A13
GBUS-CS-3DB A14
GBUS-CS-3DG A15
GBUS-CS-3DR A16
GBUS-CS-GN A17
GBUS-CLK A18
GBUS-MBB A20
V-TIM B7
H-TIM B8
TO M BOARD VIA BM BOARD
GBUS-BBM A19
OSD-YM-R B9
OSD-YM-L B10
OSD-YS-R B11
OSD-YS-L B12
OSD-I-R B13
OSD-I-L B14
OSD-B-R B15
OSD-B-L B16
OSD-G-R B17
OSD-G-L B18
OSD-R-R B19
OSD-R-L B20
FAN PROT 3/4
TEMP PROT 3/4
CRESET 3/4
SDA 3/4
SCL 3/4
OSD 2CLK 3/4
OSDV 3/4
OSDH 3/4
3/4 OSD CLK
IC3001 BUFF
IC3002 BUFF
IC3012 BUFF
OE
GBUS-BBM
SM-CLK-R 1/4
SM-CLK-L 1/4
SM-DATA-R 1/4
SM-DATA-L 1/4
SM-CS-R 1/4
SM-CS-L 1/4
GBUS-CS-GN 3/4
GBUS-CLK 3/4
GBUS-MBB 3/4
IC3003 D. FF
IC3004 D. FF
IC3008 AND
IC3009 AND
IC3010 D. FF
IC3011 D. FF
YMR YML YSR YSL IR IL BR BL
GR GL RR RL
RHR,BHR,GHR 4/4
RLR,BLR,GLR 4/4
YMR 4/4
YSR 4/4
RHL,BHL,GHL 4/4
RLL,BLL,GLL 4/4
YML 4/4
YSL 4/4
IC3201 APA
1/4 SMB 0D
1/4 SMB 1D
1/4 SMB 2D
1/4 SMB 3D
DATA2-0 DATA2-7 DATA1-0 DATA1-7 DATA3-0 DATA3-7 DATA4-0 DATA4-7
OPORT 00/SOT OPORT 01 OPORT 02 OPORT 03 OPORT 04
1/4 APACLK
1/4 APAVS
1/4 APAHS
1/4 APAODD
CLOCK VDXI HDXI ODD FVFN IN
HDXOU
SCSI SCLK SDI I SDO
OUT5
PHASE 0 1/4
PHASE 1 1/4
C63RST 1/4
Z1RST 3/4
ASYNCSEL 3/4
IC3203 BUFF
SMRFLD 1/4
SMGFLD 1/4
SMBFLD 1/4
SMRHS 1/4
SMGHS 1/4
SMBHS 1/4
IC3202 T.G
YO I/O0 I/O1 I/O2
I/O12 I/O13 I/O11
SDO/IN1 Y2/SCLK IN2/MODE ISPEN
SDI/IN0
IC3204 BUFF
SMR VS 1/4
SMG VS 1/4
SMB VS 1/4
SDO1 3/4
SCLK 3/4
MODE 3/4
ISPEN 3/4
SDO2 4/4
IC3201
SDO 7
ISPEN 5
MODE 3
SCLK 1
SDI 6

BB BLOCK (2/4)


IC3607
SCAN CONVERTER
120-124,
126,128, 132
1/4 R02D
1/4 G02D
1/4 B02D
VGARED0
VGARED7
133-140
VGAGRN0
VGAGRN7
94-99,
110,111
VGABLU0
VGABLU7
1/4 R13D
1/4 G13D
1/4 B13D
112-119
VGBRED0
(VGB Y IN0)
VGBRED7
(VGB YIN7)
165-171,
177
VGBGRN0
VGBGRN7
85-90,
92,93
VGABLU0
(VGBUIN0)
VGBBLU7
(VGBUIN7)
2/4 Z1RST
194
RESET
2/4 G BUS-MBB
65
SDI
2/4 G BUS-CLK
64
SCLK
2/4 G BUS-CS-GN
63
SCS
VCODD
OVSYNC
VGAVS
VCLREQ
VGAHS
VGACREF
DFSYNC
VGACLK
146 164 141 125 145 144 193 142
DBRED0
DBRED7
69-71,73
189-192
RRD
RRD,GRD,BRD 4/4
DARED0
DARED7
8,9,11,12,37,
38,40,41
RLD
RLD,GLD,BLD 4/4
DBGRN0
DBGRN7
178,180-182,
184-187
GRD
DAGRN0
DAGRN7
6,7,196,198,
200-203
GLD
DBBLU0
DBBLU7
74,76-78,
80-83
BRD
DABLU0
DABLU7
43,44,46,47,
58-61
BLD
DHS
29
DVS
28
DHCLK
26
DREFCLK1
175
IC3613
D.FF
2 1D 1Q 5
DHS 4/4
3 1CK
12 2D 2Q 8
OSDH 2/4
11 2CK
4/4 AGCSHP
IC3614
D.FF
2 1D 1Q 5
DVS 4/4
3 1CK
12 2D 2Q 9
OSDV 2/4
11 2CK
IC3603
BUFF
9
7
8
IC3604
CLK CONTROL
15 FOUT OSC IN 1
X3602
108 MHz
IC3609
BUFF
2 15
3 16
OSD CLK 2/4
6 14
DACLK2-R 4/4
8 12
DACLK2-G 4/4
7 13
DACLK2-B 4/4
IC3608
BUFF
3 17
15
13
3DCLK2 4/4
11
MCLK2 4/4
2 18
DSD2CLK 2/4
11 12 14 15 19 23 25 31
I/O 2
I/O 3
I/O 5
I/O 6
I/O 8
I/O 12
I/O 14
I/O 16
1/4 APAVS
24
I/O 13
2/4 ASYNCSEL
26
I/O 15
1/4 APAODD
9
I/O 0
I/O 10
21
I/O 11
22
YO
5
IC3605
BUFF
2 A1 Y1 18
RMUXL 1/4
3 A2 Y2 17
GMUXL 1/4
4 A3 Y3 16
BMUXL 1/4
5 A4 Y4 15
RMUXR 1/4
6 A5 Y5 14
GMUXR 1/4
7 A6 Y6 13
BMUXR 1/4
8 A7 Y7 12
MUXCLKL 1/4
9 A8 Y8 11
MUXCLKR 1/4
4/4 SEL
36
I/O 21
4/4 AGC D/A R
35
I/O 20
4/4 R CH AGC SHP
41
I/O 24
4/4 CVD
43
I/O 26
4/4 CHD
42
I/O 25
2/4 SDO1
8
SDI/IN0
4/4 SDO2
18
SDO/IN1
2/4 SCLK
27
Y2/SCLK
2/4 MODE
30
IN2/MODE
2/4 ISPEN
7
ISPEN
I/O 4
13
I/O 7
16
I/O 9
20
I/O 1
10
IC3606
BUFF
2 A1 Y1 18
POVSL 1/4
3 A2 Y2 17
POVSR 1/4
4 A3 Y3 16
POHSL 1/4
5 A4 Y4 15
POHSR 1/4
6 A5 Y5 14
POCLKL 1/4
7 A6 Y6 13
POCLKR 1/4
8 A7 Y7 12
POFLDL 1/4
9 A8 Y8 11
POFLDR 1/4
IC3602
T.G

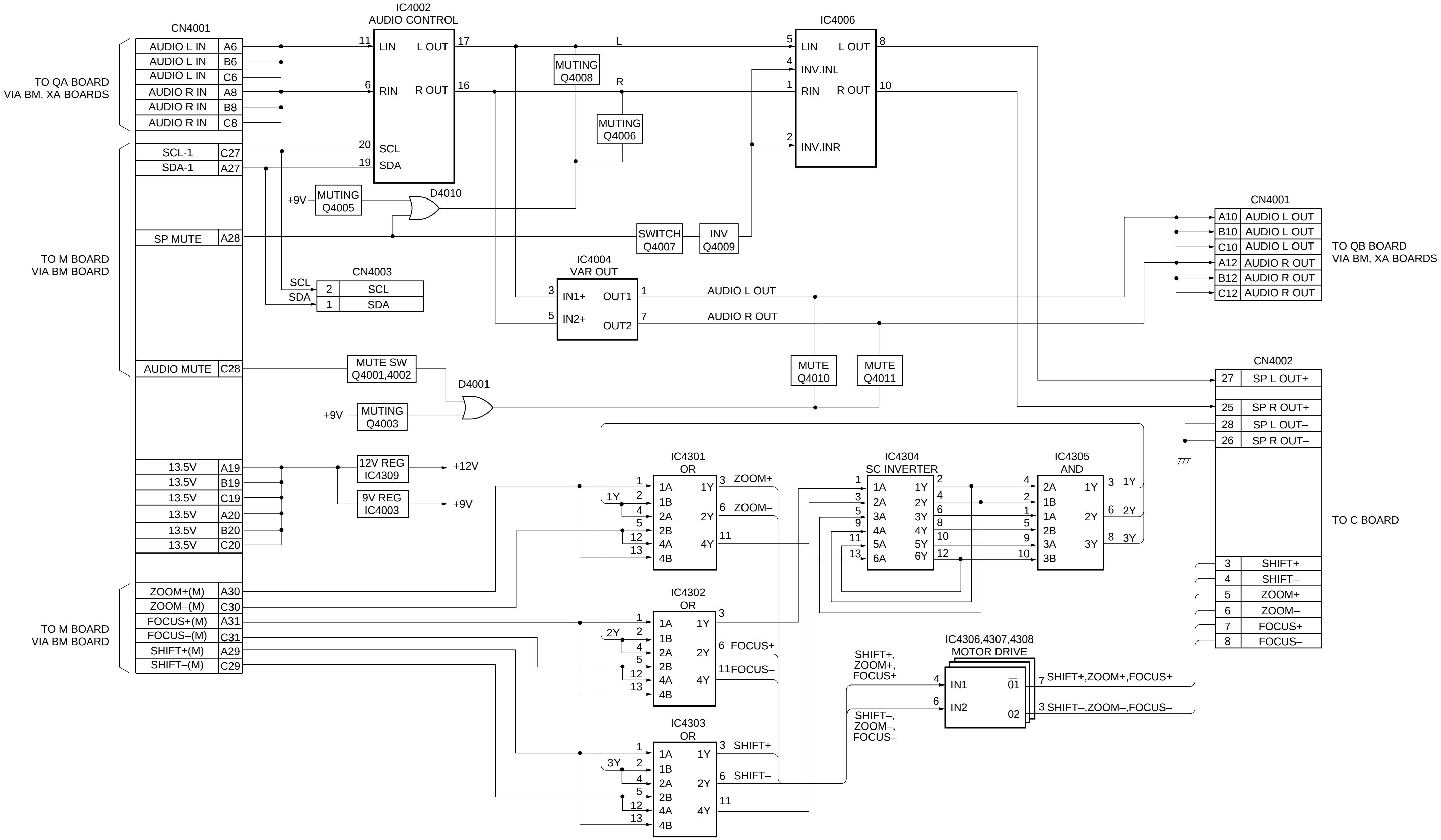
BB BLOCK (3/4)

1
2
3
4
5

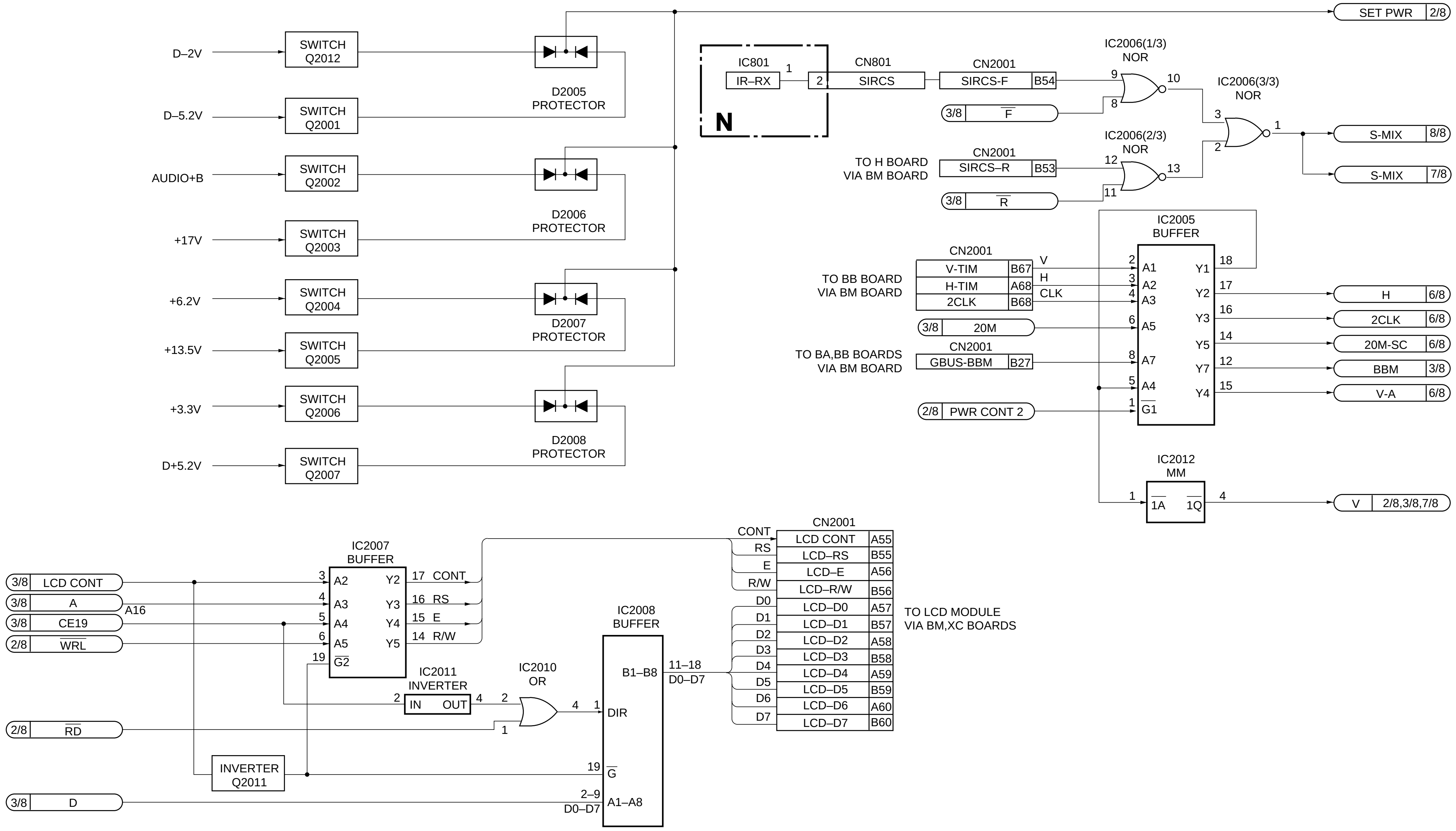

IC3801
D GAMMA
3/4 RRD,GRD,BRD
68-93
ODD IN 0
ODD IN 7
3/4 RLD,GLD,BLD
34-60
EVEN IN 0
EVEN IN 7
EVEN OUT R 0
EVEN OUT R 9
185-192
ODD OUT R 0
ODD OUT R 9
194-205
EVEN OUT G 0
EVEN OUT G 9
158-168
EVEN OUT B 0
EVEN OUR B 9
132-142
ODD OUT G 0
ODD OUT G 9
169-180
ODD OUT B 0
ODD OUT B 9
143-154
IC3805,3806,3807
R CH, B CH, G CH
DAC
14-23
B0
B9
39-48
R0
R9
IOR
57-61
IOB
80-84
V REF
36
CLOCK
24
CN3602
21 R D/A Q
23 G D/A Q
25 B D/A Q
22 R D/A I
24 G D/A I
26 B D/A I
18 RED FB
19 GREEN FB
20 BLUE FB
13 SELECT
14 AGC D/A R
1 MCLK-P/2
2 MCLK-N/2
3 HSYNC-P
4 HSYNC-N
5 VSYNC-P
6 VAYNC-N
7 SDA
8 SCL
10 CRESET
11 FAN PROT
12 TEMP PROT
TO C BOARD
IC3612
LEVEL SHIFT
2
18
3
17
3/4 AGC D/A R
3/4 SEL
3/4 DACLK2-R
3/4 DACLK2-G
3/4 DACLK2-B
3/4 MCLK2
IC3611
LEVEL SHIFT
7 BIN
14 CIN
DIN
BOUT 2
BOUT 1
COUT 18
COUT 19
DOUT 17
DOUT 16
2/4 SDA
2/4 SCL
2/4 CRESET
2/4 FAN PROT
2/4 TEMP PROT
IC3802
RESET
D3.3V
VDD
OUT
1
3.3V-RST
95
RESET
IC3803
EERROM
8
VCC
SDA 5
SCL 6
97-98
R SCL,R SDA
7
LCD FRP
3/4 DHS
3/4 DVS
3/4 3DCLK2
62 H SYN I
63 V SYNC I
64 DOTCLK2 I
H SCL
100
H SDA
101
S3801
CN3801
4 SCL
3 SDA
CN3001
A3 SDA BB
A4 SCL BB
TO M BOARD
2/4 YML
2/4 YSL
2/4 YMR
2/4 YSR
117 EVEN I YM
116 EVEN IYS
129 ODD I YM
128 ODD YS
2/4 RHL,BHL,GHL
112,114 OSD OSD R2/00
109,111 OSD OSD G2/00
103,108 OSD OSD B2/00
2/4 RLL,BLL,GLL
112,114 EVEN ODD R1
109,111 EVEN OSD G1
103,108 EVEN OSD B1
2/4 RHR,BHR,GHR
124,126 ODD OSD RL
121,123 ODD OSD GL
118,120 ODD OSD BL
2/4 RLR,BLR,GLR
125 ODD OSD RL
122 ODD OSD GL
119 ODD OSD BL
V SYNC O 207
H SYNC O 206
LCD CLR/CLP 17
AGC SHP O 3
CVD 3/4
CHD 3/4
AGCSHP 3/4
R CH AGC SHP 3/4

BB BLOCK (4/4)

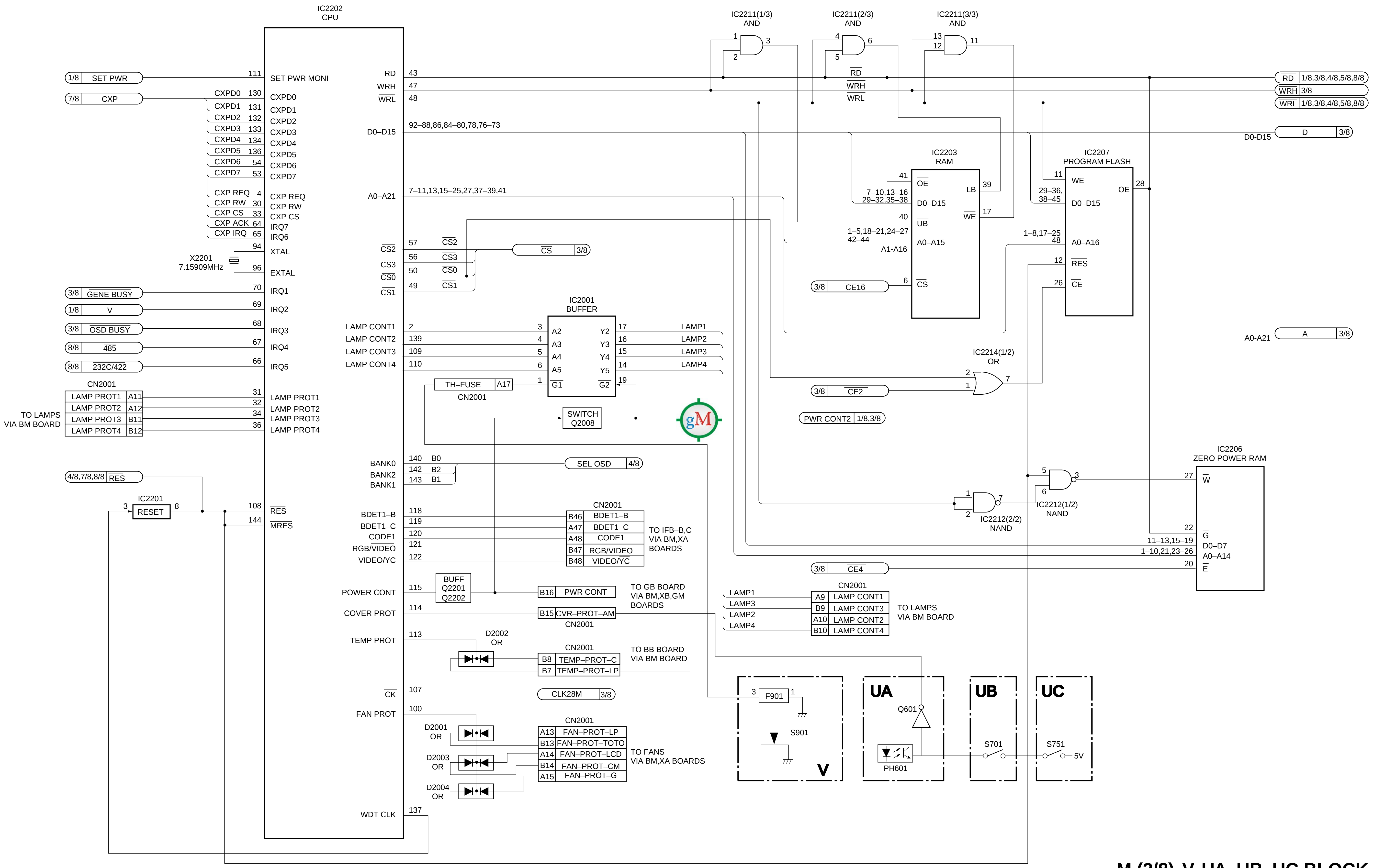
A B C D E F G H


CN4001
AUDIO L IN A6
AUDIO L IN B6
AUDIO L IN C6
AUDIO R IN A8
AUDIO R IN B8
AUDIO R IN C8
TO QA BOARD VIA BM, XA BOARDS
SCL-1 C27
SDA-1 A27
SP MUTE A28
TO M BOARD VIA BM BOARD
AUDIO MUTE C28
13.5V A19
13.5V B19
13.5V C19
13.5V A20
13.5V B20
13.5V C20
ZOOM+(M) A30
ZOOM–(M) C30
FOCUS+(M) A31
FOCUS–(M) C31
SHIFT+(M) A29
SHIFT–(M) C29
TO M BOARD VIA BM BOARD
IC4002 AUDIO CONTROL
LIN L OUT RIN R OUT SCL SDA
MUTING Q4008
MUTING Q4006
MUTING Q4005
+9V
D4010
L
R
IC4006
LIN L OUT INV.INL RIN R OUT INV.INR
SWITCH Q4007
INV Q4009
CN4003
SCL 2 SCL
SDA 1 SDA
IC4004 VAR OUT
IN1+ OUT1 IN2+ OUT2
AUDIO L OUT
AUDIO R OUT
MUTE Q4010
MUTE Q4011
MUTE SW Q4001,4002
D4001
MUTING Q4003
+9V
12V REG IC4309
+12V
9V REG IC4003
+9V
CN4001
A10 AUDIO L OUT
B10 AUDIO L OUT
C10 AUDIO L OUT
A12 AUDIO R OUT
B12 AUDIO R OUT
C12 AUDIO R OUT
TO QB BOARD VIA BM, XA BOARDS
CN4002
27 SP L OUT+
25 SP R OUT+
28 SP L OUT–
26 SP R OUT–
3 SHIFT+
4 SHIFT–
5 ZOOM+
6 ZOOM–
7 FOCUS+
8 FOCUS–
TO C BOARD
IC4301 OR
ZOOM+
ZOOM–
1Y
IC4302 OR
FOCUS+
FOCUS–
2Y
IC4303 OR
SHIFT+
SHIFT–
3Y
IC4304 SC INVERTER
IC4305 AND
1Y 2Y 3Y
IC4306,4307,4308 MOTOR DRIVE
IN1 O1 IN2 O2
SHIFT+, ZOOM+, FOCUS+
SHIFT–, ZOOM–, FOCUS–
SHIFT+,ZOOM+,FOCUS+
SHIFT–,ZOOM–,FOCUS–

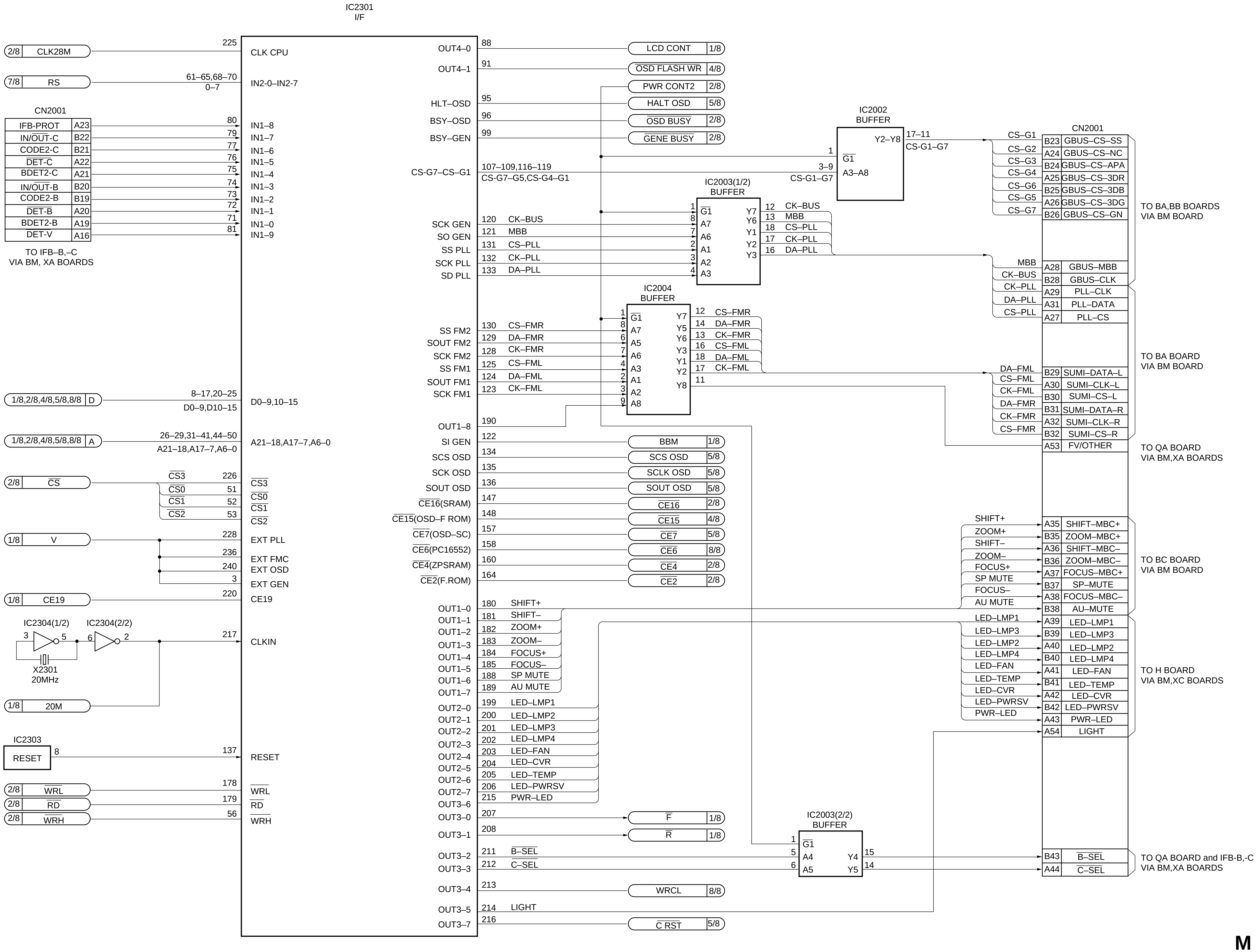
BC BLOCK


D–2V
SWITCH Q2012
D–5.2V
SWITCH Q2001
AUDIO+B
SWITCH Q2002
+17V
SWITCH Q2003
+6.2V
SWITCH Q2004
+13.5V
SWITCH Q2005
+3.3V
SWITCH Q2006
D+5.2V
SWITCH Q2007
D2005 PROTECTOR
D2006 PROTECTOR
D2007 PROTECTOR
D2008 PROTECTOR
SET PWR 2/8
IC801
IR–RX
1
2
N
CN801
SIRCS
CN2001
SIRCS-F
B54
3/8 F
IC2006(1/3) NOR
9
8
10
IC2006(3/3) NOR
3
2
1
S-MIX 8/8
S-MIX 7/8
TO H BOARD VIA BM BOARD
CN2001
SIRCS–R
B53
3/8 R
IC2006(2/3) NOR
12
11
13
IC2005 BUFFER
TO BB BOARD VIA BM BOARD
CN2001
V-TIM B67
H-TIM A68
2CLK B68
V
H
CLK
3/8 20M
TO BA,BB BOARDS VIA BM BOARD
CN2001
GBUS-BBM B27
2/8 PWR CONT 2
2 A1
3 A2
4 A3
6 A5
8 A7
5 A4
1 G1
Y1 18
Y2 17
Y3 16
Y5 14
Y7 12
Y4 15
H 6/8
2CLK 6/8
20M-SC 6/8
BBM 3/8
V-A 6/8
IC2012 MM
1 1A
1Q 4
V 2/8,3/8,7/8
3/8 LCD CONT
3/8 A
A16
3/8 CE19
2/8 WRL
IC2007 BUFFER
3 A2
4 A3
5 A4
6 A5
19 G2
Y2 17 CONT
Y3 16 RS
Y4 15 E
Y5 14 R/W
IC2011 INVERTER
2 IN
OUT 4
IC2010 OR
2
1
4
2/8 RD
INVERTER Q2011
3/8 D
IC2008 BUFFER
1 DIR
19 G
2–9 D0–D7 A1–A8
B1–B8
11–18 D0–D7
CN2001
CONT LCD CONT A55
RS LCD–RS B55
E LCD–E A56
R/W LCD–R/W B56
D0 LCD–D0 A57
D1 LCD–D1 B57
D2 LCD–D2 A58
D3 LCD–D3 B58
D4 LCD–D4 A59
D5 LCD–D5 B59
D6 LCD–D6 A60
D7 LCD–D7 B60
TO LCD MODULE VIA BM,XC BOARDS

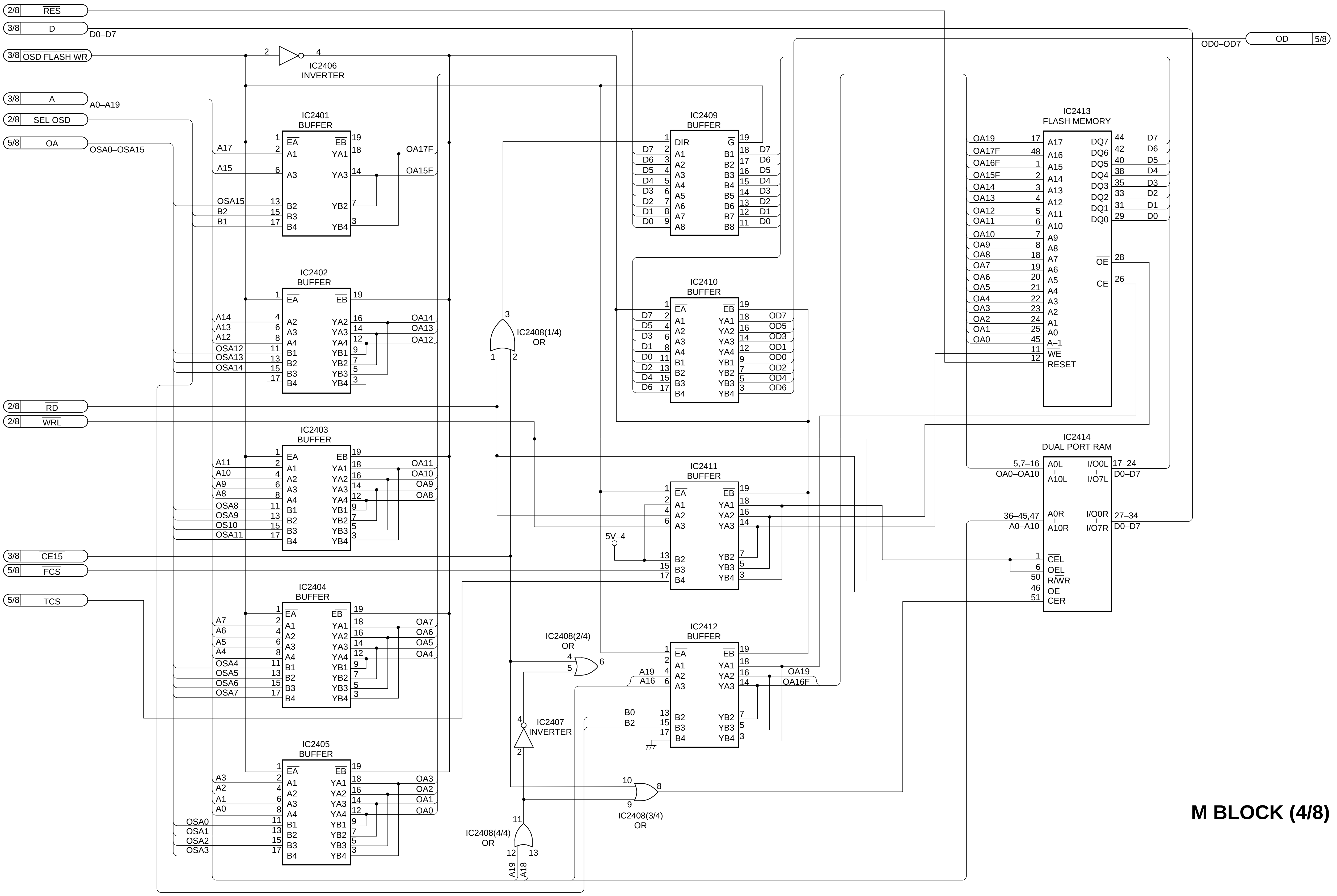
M (1/8), N BLOCK


IC2202
CPU
SET PWR MONI
CXPD0
CXPD1
CXPD2
CXPD3
CXPD4
CXPD5
CXPD6
CXPD7
CXP REQ
CXP RW
CXP CS
IRQ7
IRQ6
XTAL
EXTAL
IRQ1
IRQ2
IRQ3
IRQ4
IRQ5
LAMP PROT1
LAMP PROT2
LAMP PROT3
LAMP PROT4
RES
MRES
RD
WRH
WRL
D0–D15
A0–A21
CS2
CS3
CS0
CS1
LAMP CONT1
LAMP CONT2
LAMP CONT3
LAMP CONT4
BANK0
BANK2
BANK1
BDET1–B
BDET1–C
CODE1
RGB/VIDEO
VIDEO/YC
POWER CONT
COVER PROT
TEMP PROT
CK
FAN PROT
WDT CLK
1/8 SET PWR
7/8 CXP
3/8 GENE BUSY
1/8 V
3/8 OSD BUSY
8/8 485
8/8 232C/422
4/8,7/8,8/8 RES
X2201
7.15909MHz
CN2001
LAMP PROT1 A11
LAMP PROT2 A12
LAMP PROT3 B11
LAMP PROT4 B12
TO LAMPS
VIA BM BOARD
IC2201
RESET
92–88,86,84–80,78,76–73
7–11,13,15–25,27,37–39,41
CS 3/8
IC2001
BUFFER
A2 A3 A4 A5 G1
Y2 Y3 Y4 Y5 G2
LAMP1
LAMP2
LAMP3
LAMP4
TH–FUSE A17
CN2001
SWITCH
Q2008
PWR CONT2 1/8,3/8
B0
B2
B1
SEL OSD 4/8
CN2001
B46 BDET1–B
A47 BDET1–C
A48 CODE1
B47 RGB/VIDEO
B48 VIDEO/YC
TO IFB–B,C
VIA BM,XA
BOARDS
BUFF
Q2201
Q2202
B16 PWR CONT
B15 CVR–PROT–AM
CN2001
TO GB BOARD
VIA BM,XB,GM
BOARDS
D2002
OR
CN2001
B8 TEMP–PROT–C
B7 TEMP–PROT–LP
TO BB BOARD
VIA BM BOARD
CLK28M 3/8
D2001
OR
D2003
OR
D2004
OR
CN2001
A13 FAN–PROT–LP
B13 FAN–PROT–TOTO
A14 FAN–PROT–LCD
B14 FAN–PROT–CM
A15 FAN–PROT–G
TO FANS
VIA BM,XA BOARDS
IC2211(1/3)
AND
IC2211(2/3)
AND
IC2211(3/3)
AND
RD
WRH
WRL
RD 1/8,3/8,4/8,5/8,8/8
WRH 3/8
WRL 1/8,3/8,4/8,5/8,8/8
D0-D15
D 3/8
IC2203
RAM
OE
D0–D15
UB
A0–A15
CS
LB
WE
7–10,13–16
29–32,35–38
1–5,18–21,24–27
42–44
A1-A16
3/8 CE16
IC2207
PROGRAM FLASH
WE
D0–D15
A0–A16
RES
CE
OE
29–36,
38–45
1–8,17–25
A0-A21
A 3/8
IC2214(1/2)
OR
3/8 CE2
IC2212(1/2)
NAND
IC2212(2/2)
NAND
IC2206
ZERO POWER RAM
W
G
D0–D7
A0–A14
E
11–13,15–19
1–10,21,23–26
3/8 CE4
CN2001
A9 LAMP CONT1
B9 LAMP CONT3
A10 LAMP CONT2
B10 LAMP CONT4
LAMP1
LAMP3
LAMP2
LAMP4
TO LAMPS
VIA BM BOARD
F901
S901
V
UA
Q601
PH601
UB
S701
UC
S751
5V
1
2
3
4
5
A
B
C
D
E
F
G
H

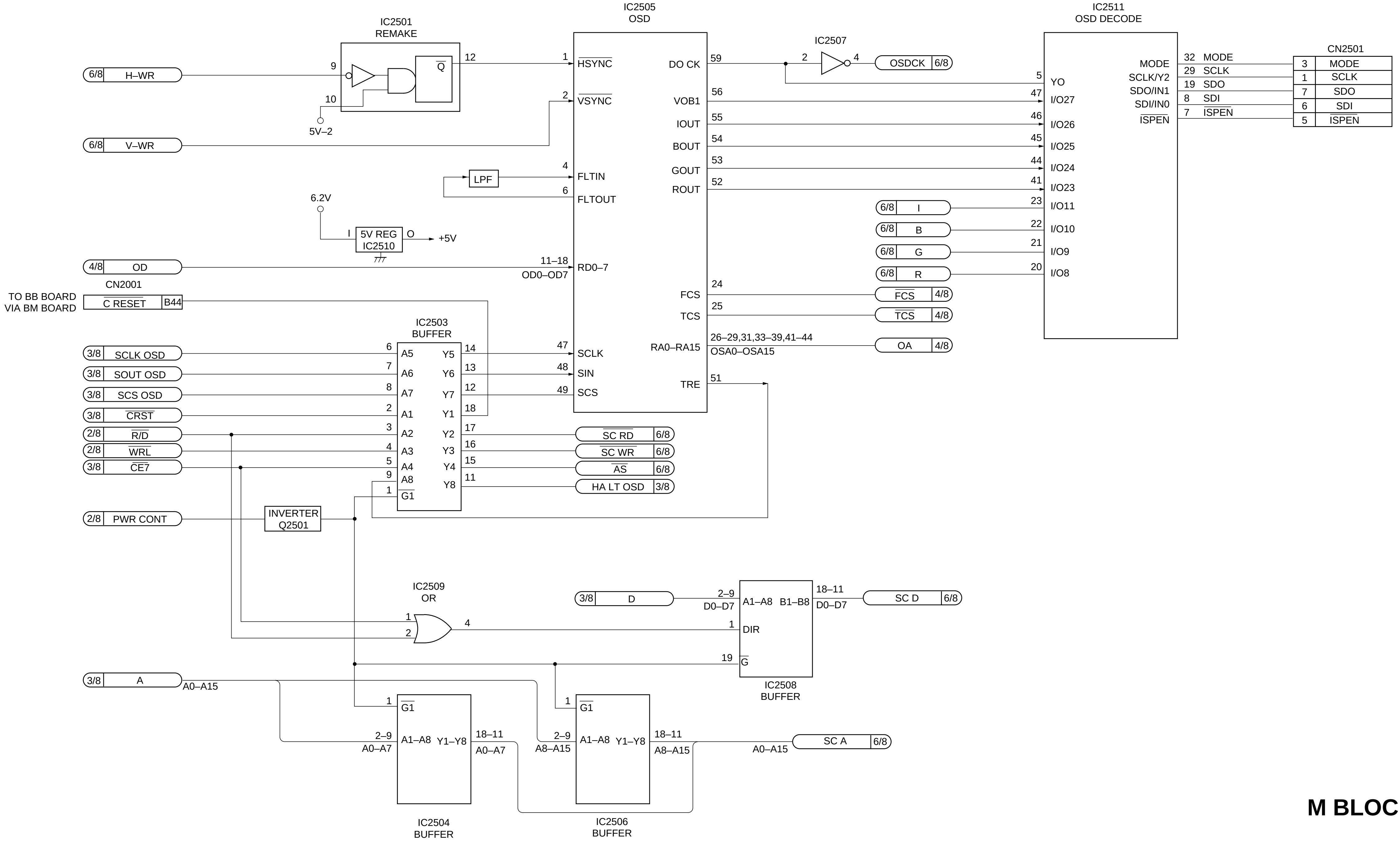
M (2/8), V, UA, UB, UC BLOCK


IC2301
I/F
2/8 CLK28M
225
CLK CPU
7/8 RS
61–65,68–70
0–7
IN2-0–IN2-7
CN2001
IFB-PROT A23 80 IN1–8
IN/OUT-C B22 79 IN1–7
CODE2-C B21 77 IN1–6
DET-C A22 76 IN1–5
BDET2-C A21 75 IN1–4
IN/OUT-B B20 74 IN1–3
CODE2-B B19 73 IN1–2
DET-B A20 72 IN1–1
BDET2-B A19 71 IN1–0
DET-V A16 81 IN1–9
TO IFB–B,–C
VIA BM, XA BOARDS
1/8,2/8,4/8,5/8,8/8 D
8–17,20–25
D0–9,D10–15
D0–9,10–15
1/8,2/8,4/8,5/8,8/8 A
26–29,31–41,44–50
A21–18,A17–7,A6–0
A21–18,A17–7,A6–0
2/8 CS
CS3 226
CS0 51
CS1 52
CS2 53
CS3
CS0
CS1
CS2
1/8 V
228 EXT PLL
236 EXT FMC
240 EXT OSD
3 EXT GEN
1/8 CE19
220 CE19
IC2304(1/2)
IC2304(2/2)
3 5 6 2
X2301
20MHz
217 CLKIN
1/8 20M
IC2303
RESET
8
137 RESET
2/8 WRL 178 WRL
2/8 RD 179 RD
2/8 WRH 56 WRH
OUT4–0 88 LCD CONT 1/8
OUT4–1 91 OSD FLASH WR 4/8
PWR CONT2 2/8
HLT–OSD 95 HALT OSD 5/8
BSY–OSD 96 OSD BUSY 2/8
BSY–GEN 99 GENE BUSY 2/8
IC2002
BUFFER
Y2–Y8
17–11
CS-G1–G7
1
3–9
CS-G1–G7
G1
A3–A8
CS-G7–CS-G1
107–109,116–119
CS-G7–G5,CS-G4–G1
IC2003(1/2)
BUFFER
1 G1 Y7 12 CK–BUS
8 A7 Y6 13 MBB
7 A6 Y1 18 CS–PLL
2 A1 Y2 17 CK–PLL
3 A2 Y3 16 DA–PLL
4 A3
SCK GEN 120 CK–BUS
SO GEN 121 MBB
SS PLL 131 CS–PLL
SCK PLL 132 CK–PLL
SD PLL 133 DA–PLL
IC2004
BUFFER
1 G1 Y7 12 CS–FMR
8 A7 Y5 14 DA–FMR
6 A5 Y6 13 CK–FMR
7 A6 Y3 16 CS–FML
4 A3 Y1 18 DA–FML
2 A1 Y2 17 CK–FML
3 A2 Y8 11
9 A8
SS FM2 130 CS–FMR
SOUT FM2 129 DA–FMR
SCK FM2 128 CK–FMR
SS FM1 125 CS–FML
SOUT FM1 124 DA–FML
SCK FM1 123 CK–FML
OUT1–8 190
SI GEN 122 BBM 1/8
SCS OSD 134 SCS OSD 5/8
SCK OSD 135 SCLK OSD 5/8
SOUT OSD 136 SOUT OSD 5/8
CE16(SRAM) 147 CE16 2/8
CE15(OSD–F ROM) 148 CE15 4/8
CE7(OSD–SC) 157 CE7 5/8
CE6(PC16552) 158 CE6 8/8
CE4(ZPSRAM) 160 CE4 2/8
CE2(F.ROM) 164 CE2 2/8
OUT1–0 180 SHIFT+
OUT1–1 181 SHIFT–
OUT1–2 182 ZOOM+
OUT1–3 183 ZOOM–
OUT1–4 184 FOCUS+
OUT1–5 185 FOCUS–
OUT1–6 188 SP MUTE
OUT1–7 189 AU MUTE
OUT2–0 199 LED–LMP1
OUT2–1 200 LED–LMP2
OUT2–2 201 LED–LMP3
OUT2–3 202 LED–LMP4
OUT2–4 203 LED–FAN
OUT2–5 204 LED–CVR
OUT2–6 205 LED–TEMP
OUT2–7 206 LED–PWRSV
OUT3–6 215 PWR–LED
OUT3–0 207 F 1/8
OUT3–1 208 R 1/8
IC2003(2/2)
BUFFER
1 G1
5 A4 Y4 15
6 A5 Y5 14
OUT3–2 211 B–SEL
OUT3–3 212 C–SEL
OUT3–4 213 WRCL 8/8
OUT3–5 214 LIGHT
OUT3–7 216 C RST 5/8
CN2001
CS–G1 B23 GBUS–CS–SS
CS–G2 A24 GBUS–CS–NC
CS–G3 B24 GBUS–CS–APA
CS–G4 A25 GBUS–CS–3DR
CS–G6 B25 GBUS–CS–3DB
CS–G5 A26 GBUS–CS–3DG
CS–G7 B26 GBUS–CS–GN
TO BA,BB BOARDS
VIA BM BOARD
MBB A28 GBUS–MBB
CK–BUS B28 GBUS–CLK
CK–PLL A29 PLL–CLK
DA–PLL A31 PLL–DATA
CS–PLL A27 PLL–CS
TO BA BOARD
VIA BM BOARD
DA–FML B29 SUMI–DATA–L
CS–FML A30 SUMI–CLK–L
CK–FML B30 SUMI–CS–L
DA–FMR B31 SUMI–DATA–R
CK–FMR A32 SUMI–CLK–R
CS–FMR B32 SUMI–CS–R
A53 FV/OTHER
TO QA BOARD
VIA BM,XA BOARDS
SHIFT+ A35 SHIFT–MBC+
ZOOM+ B35 ZOOM–MBC+
SHIFT– A36 SHIFT–MBC–
ZOOM– B36 ZOOM–MBC–
FOCUS+ A37 FOCUS–MBC+
SP MUTE B37 SP–MUTE
FOCUS– A38 FOCUS–MBC–
AU MUTE B38 AU–MUTE
TO BC BOARD
VIA BM BOARD
LED–LMP1 A39 LED–LMP1
LED–LMP3 B39 LED–LMP3
LED–LMP2 A40 LED–LMP2
LED–LMP4 B40 LED–LMP4
LED–FAN A41 LED–FAN
LED–TEMP B41 LED–TEMP
LED–CVR A42 LED–CVR
LED–PWRSV B42 LED–PWRSV
PWR–LED A43 PWR–LED
A54 LIGHT
TO H BOARD
VIA BM,XC BOARDS
B43 B–SEL
A44 C–SEL
TO QA BOARD and IFB-B,-C
VIA BM,XA BOARDS

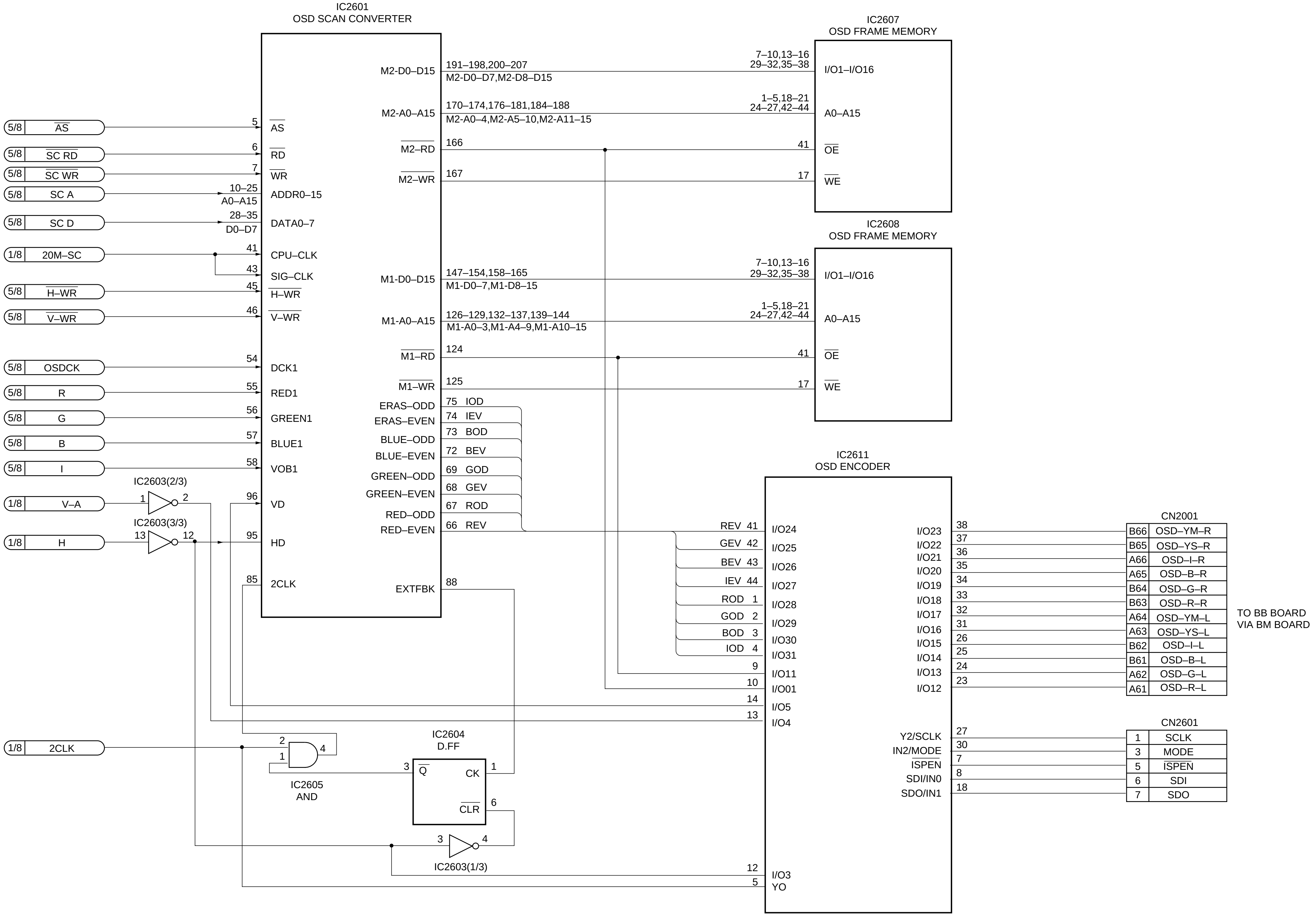
M BLOCK (3/8)


2/8 RES
3/8 D
D0–D7
3/8 OSD FLASH WR
3/8 A
A0–A19
2/8 SEL OSD
5/8 OA
OSA0–OSA15
2/8 RD
2/8 WRL
3/8 CE15
5/8 FCS
5/8 TCS
IC2406 INVERTER
IC2401 BUFFER
IC2402 BUFFER
IC2403 BUFFER
IC2404 BUFFER
IC2405 BUFFER
IC2408(1/4) OR
IC2408(2/4) OR
IC2408(3/4) OR
IC2408(4/4) OR
IC2407 INVERTER
IC2409 BUFFER
IC2410 BUFFER
IC2411 BUFFER
IC2412 BUFFER
5V–4
IC2413 FLASH MEMORY
IC2414 DUAL PORT RAM
OD 5/8
OD0–OD7
OA0–OA10
A0–A10
D0–D7
OA17F
OA15F
OA16F
OA19
A19
A18
1
2
3
4
5
A
B
C
D
E
F
G
H

M BLOCK (4/8)

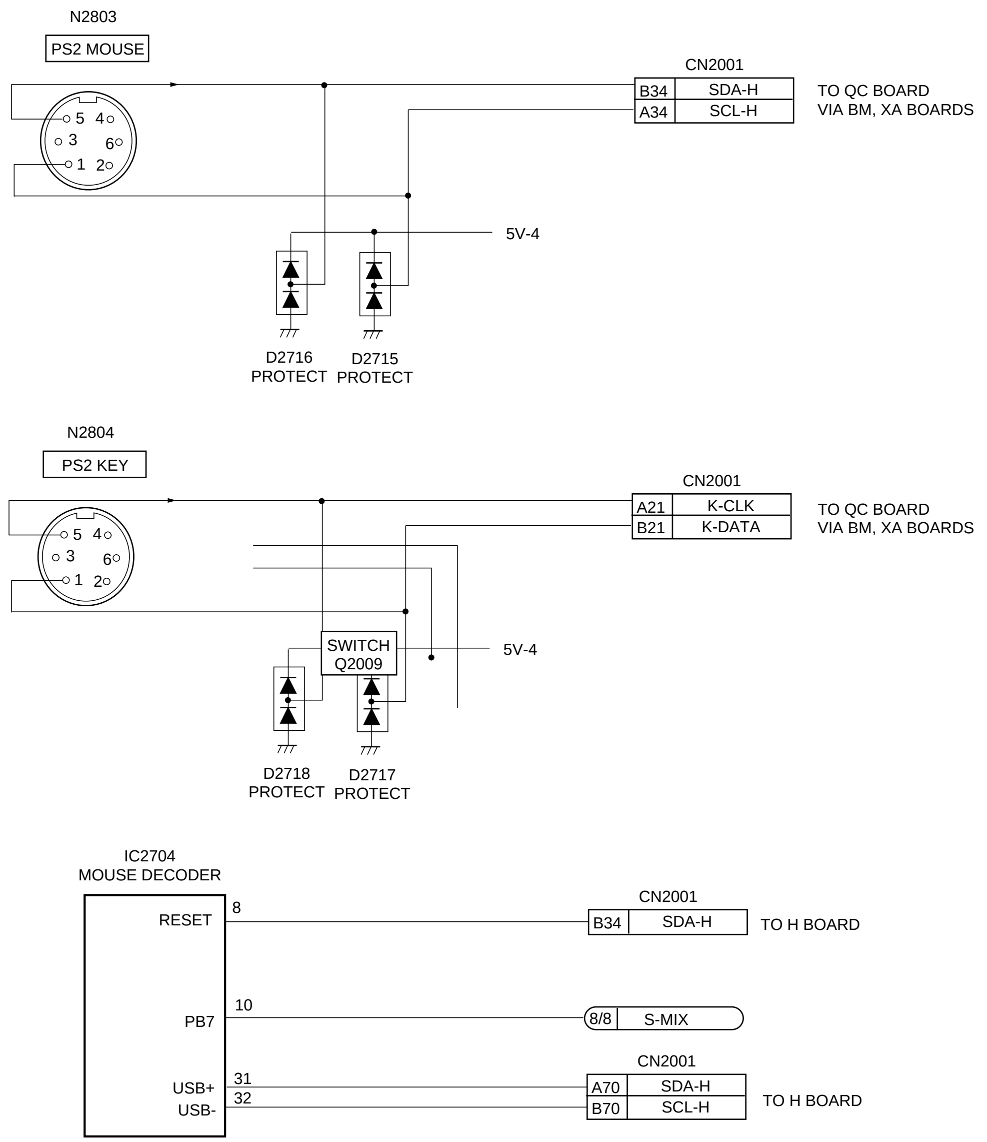

IC2501
REMAKE
6/8 H–WR
9
10
5V–2
Q
12
6/8 V–WR
IC2505
OSD
1 HSYNC
2 VSYNC
4 FLTIN
6 FLTOUT
LPF
6.2V
I 5V REG IC2510 O
+5V
4/8 OD
11–18
OD0–OD7
RD0–7
CN2001
TO BB BOARD
VIA BM BOARD
C RESET B44
DO CK 59
VOB1 56
IOUT 55
BOUT 54
GOUT 53
ROUT 52
FCS 24
TCS 25
RA0–RA15
26–29,31,33–39,41–44
OSA0–OSA15
TRE 51
47 SCLK
48 SIN
49 SCS
IC2507
2
4
OSDCK 6/8
IC2511
OSD DECODE
5 YO
47 I/O27
46 I/O26
45 I/O25
44 I/O24
41 I/O23
23 I/O11
22 I/O10
21 I/O9
20 I/O8
MODE 32 MODE
SCLK/Y2 29 SCLK
SDO/IN1 19 SDO
SDI/IN0 8 SDI
ISPEN 7 ISPEN
CN2501
3 MODE
1 SCLK
7 SDO
6 SDI
5 ISPEN
6/8 I
6/8 B
6/8 G
6/8 R
FCS 4/8
TCS 4/8
OA 4/8
IC2503
BUFFER
3/8 SCLK OSD
3/8 SOUT OSD
3/8 SCS OSD
3/8 CRST
2/8 R/D
2/8 WRL
3/8 CE7
6 A5 Y5 14
7 A6 Y6 13
8 A7 Y7 12
2 A1 Y1 18
3 A2 Y2 17
4 A3 Y3 16
5 A4 Y4 15
9 A8 Y8 11
1 G1
SC RD 6/8
SC WR 6/8
AS 6/8
HA LT OSD 3/8
2/8 PWR CONT
INVERTER
Q2501
IC2509
OR
1
2
4
3/8 D
2–9
D0–D7
A1–A8 B1–B8
18–11
D0–D7
SC D 6/8
1 DIR
19 G
IC2508
BUFFER
3/8 A
A0–A15
1 G1
2–9
A0–A7
A1–A8 Y1–Y8
18–11
A0–A7
IC2504
BUFFER
1 G1
2–9
A8–A15
A1–A8 Y1–Y8
18–11
A8–A15
IC2506
BUFFER
A0–A15
SC A 6/8

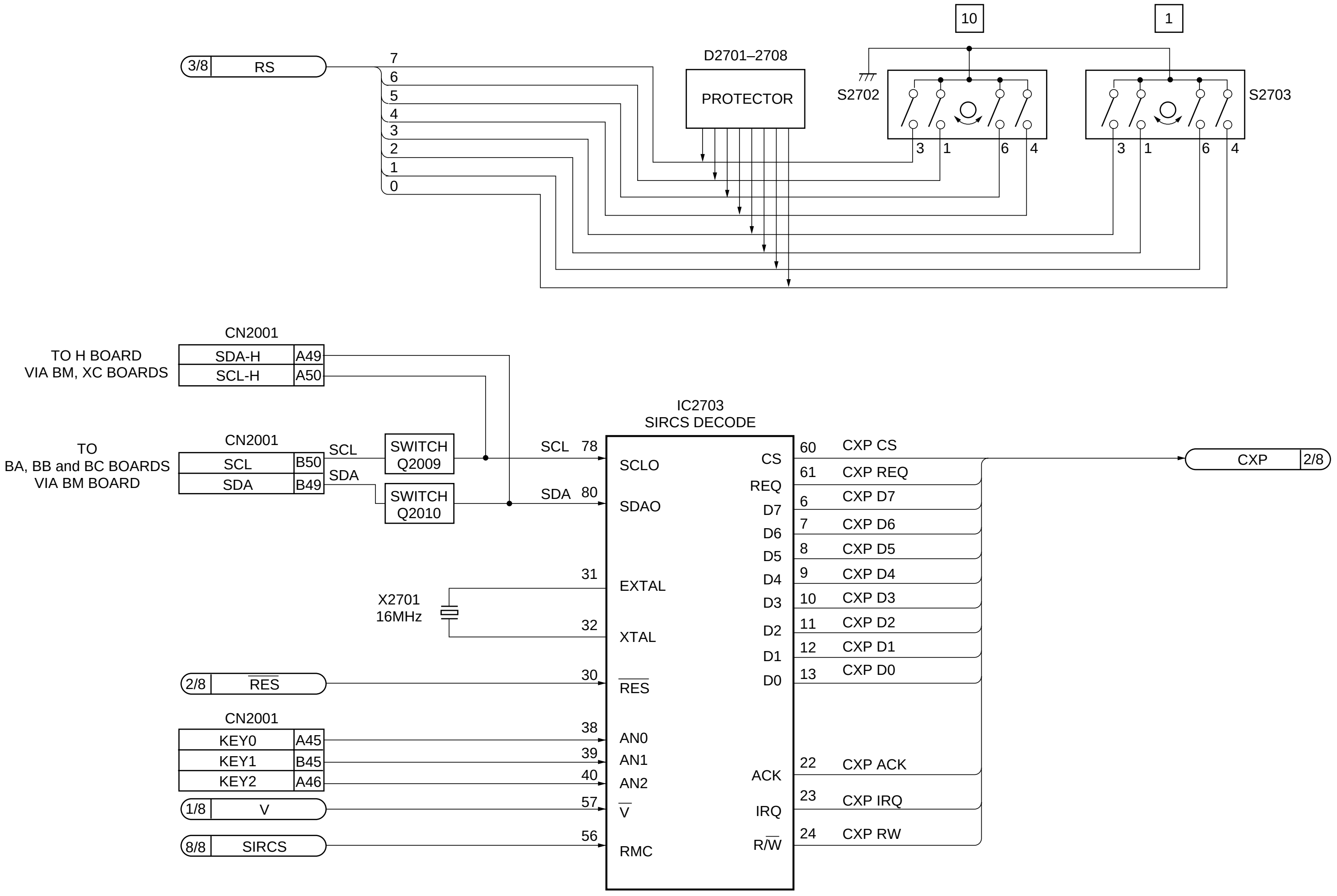
M BLOCK (5/8)


IC2601
OSD SCAN CONVERTER
5/8 AS
5/8 SC RD
5/8 SC WR
5/8 SC A
5/8 SC D
1/8 20M–SC
5/8 H–WR
5/8 V–WR
5/8 OSDCK
5/8 R
5/8 G
5/8 B
5/8 I
1/8 V–A
1/8 H
1/8 2CLK
5 AS
6 RD
7 WR
10–25 A0–A15 ADDR0–15
28–35 D0–D7 DATA0–7
41 CPU–CLK
43 SIG–CLK
45 H–WR
46 V–WR
54 DCK1
55 RED1
56 GREEN1
57 BLUE1
58 VOB1
96 VD
95 HD
85 2CLK
IC2603(2/3)
IC2603(3/3)
M2-D0–D15 191–198,200–207 M2-D0–D7,M2-D8–D15
M2-A0–A15 170–174,176–181,184–188 M2-A0–4,M2-A5–10,M2-A11–15
M2–RD 166
M2–WR 167
M1-D0–D15 147–154,158–165 M1-D0–7,M1-D8–15
M1-A0–A15 126–129,132–137,139–144 M1-A0–3,M1-A4–9,M1-A10–15
M1–RD 124
M1–WR 125
ERAS–ODD 75 IOD
ERAS–EVEN 74 IEV
BLUE–ODD 73 BOD
BLUE–EVEN 72 BEV
GREEN–ODD 69 GOD
GREEN–EVEN 68 GEV
RED–ODD 67 ROD
RED–EVEN 66 REV
EXTFBK 88
IC2607
OSD FRAME MEMORY
7–10,13–16 29–32,35–38 I/O1–I/O16
1–5,18–21 24–27,42–44 A0–A15
41 OE
17 WE
IC2608
OSD FRAME MEMORY
7–10,13–16 29–32,35–38 I/O1–I/O16
1–5,18–21 24–27,42–44 A0–A15
41 OE
17 WE
IC2611
OSD ENCODER
REV 41 I/O24
GEV 42 I/O25
BEV 43 I/O26
IEV 44 I/O27
ROD 1 I/O28
GOD 2 I/O29
BOD 3 I/O30
IOD 4 I/O31
9 I/O11
10 I/O01
14 I/O5
13 I/O4
12 I/O3
5 YO
I/O23 38
I/O22 37
I/O21 36
I/O20 35
I/O19 34
I/O18 33
I/O17 32
I/O16 31
I/O15 26
I/O14 25
I/O13 24
I/O12 23
Y2/SCLK 27
IN2/MODE 30
ISPEN 7
SDI/IN0 8
SDO/IN1 18
CN2001
B66 OSD–YM–R
B65 OSD–YS–R
A66 OSD–I–R
A65 OSD–B–R
B64 OSD–G–R
B63 OSD–R–R
A64 OSD–YM–L
A63 OSD–YS–L
B62 OSD–I–L
B61 OSD–B–L
A62 OSD–G–L
A61 OSD–R–L
TO BB BOARD
VIA BM BOARD
CN2601
1 SCLK
3 MODE
5 ISPEN
6 SDI
7 SDO
IC2604
D.FF
3 Q
CK 1
CLR 6
IC2605
AND
IC2603(1/3)
1
2
3
4
5
A
B
C
D
E
F
G
H

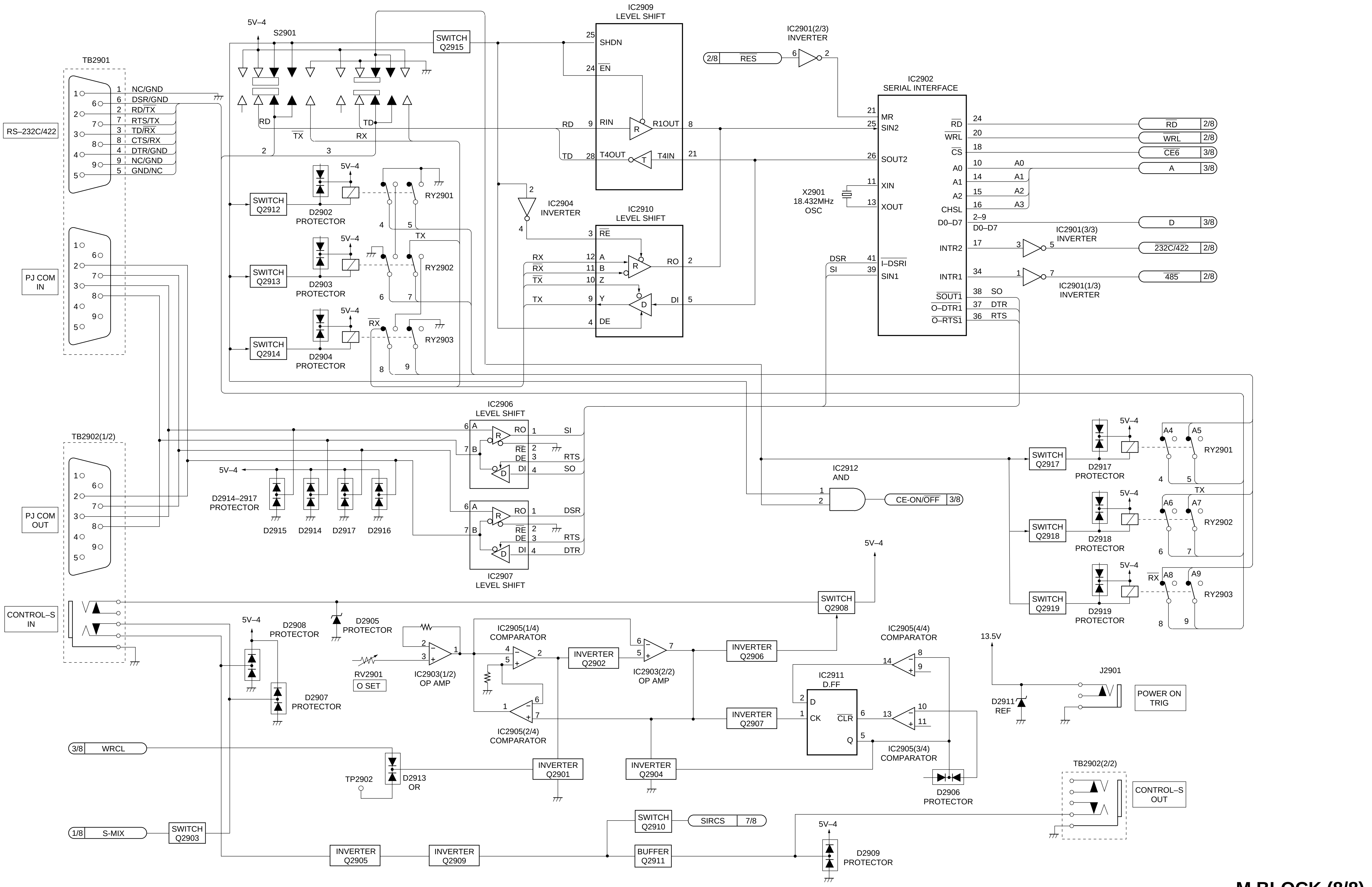
M BLOCK (6/8)

http://getMANUAL.com


N2803
PS2 MOUSE
5 4
3 6
1 2
CN2001
B34 SDA-H
A34 SCL-H
TO QC BOARD
VIA BM, XA BOARDS
5V-4
D2716
PROTECT
D2715
PROTECT
N2804
PS2 KEY
5 4
3 6
1 2
CN2001
A21 K-CLK
B21 K-DATA
TO QC BOARD
VIA BM, XA BOARDS
SWITCH
Q2009
5V-4
D2718
PROTECT
D2717
PROTECT
IC2704
MOUSE DECODER
RESET
8
PB7
10
USB+
31
USB-
32
CN2001
B34 SDA-H
TO H BOARD
8/8 S-MIX
CN2001
A70 SDA-H
B70 SCL-H
TO H BOARD

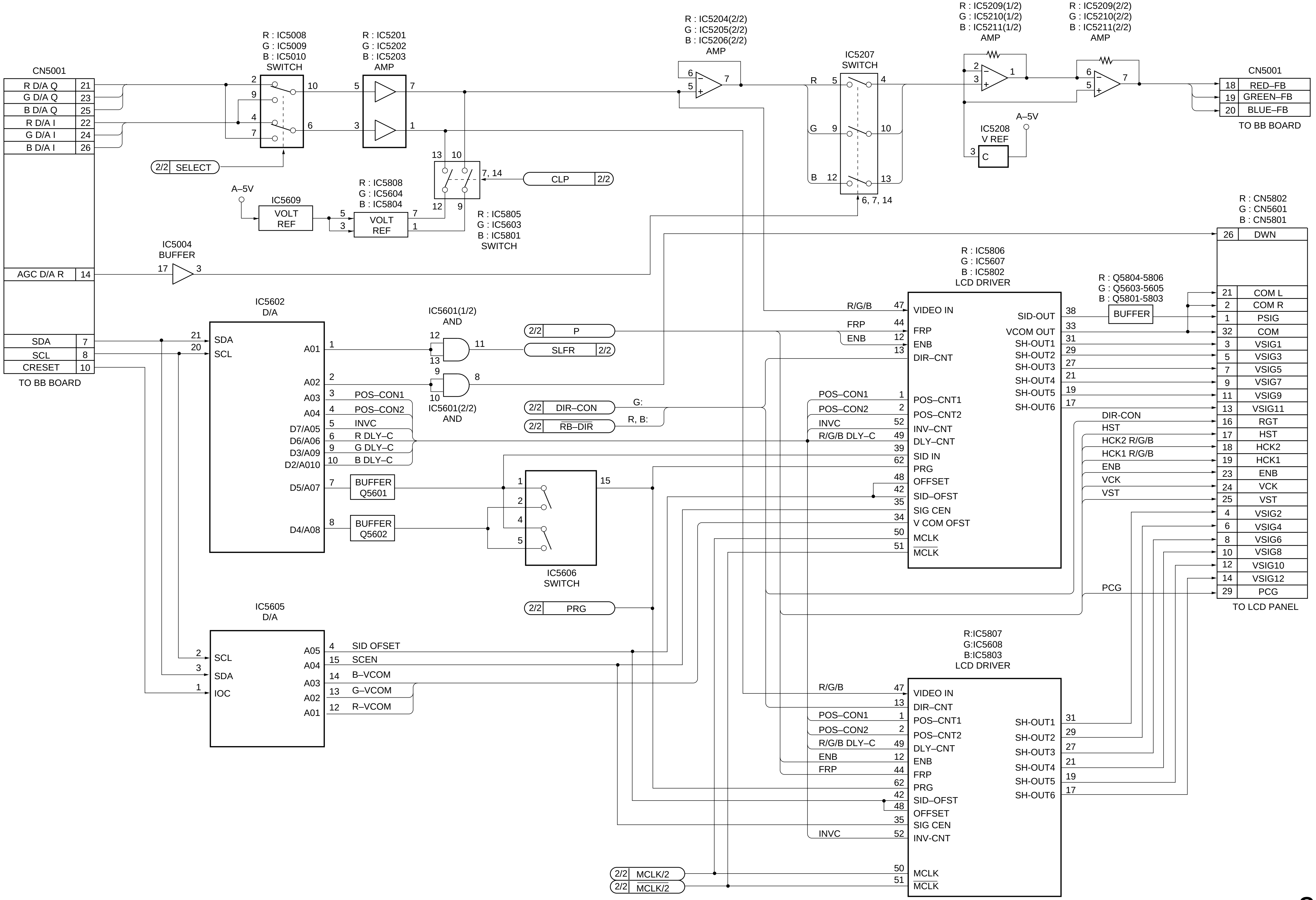

3/8 RS
7
6
5
4
3
2
1
0
D2701–2708
PROTECTOR
10
1
S2702
S2703
3 1 6 4
3 1 6 4
CN2001
TO H BOARD
VIA BM, XC BOARDS
SDA-H A49
SCL-H A50
TO
BA, BB and BC BOARDS
VIA BM BOARD
CN2001
SCL B50
SDA B49
SCL
SDA
SWITCH
Q2009
SWITCH
Q2010
IC2703
SIRCS DECODE
SCL 78
SDA 80
SCLO
SDAO
31 EXTAL
32 XTAL
X2701
16MHz
2/8 RES
30 RES
CN2001
KEY0 A45
KEY1 B45
KEY2 A46
38 AN0
39 AN1
40 AN2
1/8 V
57 V
8/8 SIRCS
56 RMC
CS 60 CXP CS
REQ 61 CXP REQ
D7 6 CXP D7
D6 7 CXP D6
D5 8 CXP D5
D4 9 CXP D4
D3 10 CXP D3
D2 11 CXP D2
D1 12 CXP D1
D0 13 CXP D0
ACK 22 CXP ACK
IRQ 23 CXP IRQ
R/W 24 CXP RW
CXP 2/8

M BLOCK (7/8)


1
2
3
4
5
TB2901
RS–232C/422
1 NC/GND
6 DSR/GND
2 RD/TX
7 RTS/TX
3 TD/RX
8 CTS/RX
4 DTR/GND
9 NC/GND
5 GND/NC
PJ COM IN
TB2902(1/2)
PJ COM OUT
CONTROL–S IN
5V–4
S2901
RD
TD
TX
RX
SWITCH Q2915
SWITCH Q2912
D2902 PROTECTOR
RY2901
SWITCH Q2913
D2903 PROTECTOR
RY2902
SWITCH Q2914
D2904 PROTECTOR
RY2903
IC2909 LEVEL SHIFT
SHDN
EN
RIN
R1OUT
T4OUT
T4IN
IC2904 INVERTER
IC2910 LEVEL SHIFT
RE
A
B
Z
Y
DE
RO
DI
IC2901(2/3) INVERTER
2/8 RES
IC2902 SERIAL INTERFACE
MR
SIN2
SOUT2
XIN
XOUT
I–DSRI
SIN1
RD
WRL
CS
A0
A1
A2
A3
CHSL
D0–D7
INTR2
INTR1
SOUT1
O–DTR1
O–RTS1
SO
DTR
RTS
DSR
SI
X2901 18.432MHz OSC
RD 2/8
WRL 2/8
CE6 3/8
A 3/8
D 3/8
IC2901(3/3) INVERTER
232C/422 2/8
IC2901(1/3) INVERTER
485 2/8
IC2906 LEVEL SHIFT
IC2907 LEVEL SHIFT
D2914–2917 PROTECTOR
D2915
D2914
D2917
D2916
IC2912 AND
CE–ON/OFF 3/8
SWITCH Q2917
D2917 PROTECTOR
A4
A5
RY2901
SWITCH Q2918
D2918 PROTECTOR
A6
A7
RY2902
SWITCH Q2919
D2919 PROTECTOR
A8
A9
RY2903
SWITCH Q2908
D2905 PROTECTOR
D2908 PROTECTOR
D2907 PROTECTOR
IC2903(1/2) OP AMP
RV2901 O SET
IC2905(1/4) COMPARATOR
IC2905(2/4) COMPARATOR
INVERTER Q2902
IC2903(2/2) OP AMP
INVERTER Q2906
INVERTER Q2907
IC2905(4/4) COMPARATOR
IC2911 D.FF
D
CK
CLR
Q
IC2905(3/4) COMPARATOR
13.5V
D2911 REF
J2901
POWER ON TRIG
3/8 WRCL
D2913 OR
TP2902
INVERTER Q2901
INVERTER Q2904
D2906 PROTECTOR
TB2902(2/2)
CONTROL–S OUT
1/8 S-MIX
SWITCH Q2903
INVERTER Q2905
INVERTER Q2909
SWITCH Q2910
SIRCS 7/8
BUFFER Q2911
D2909 PROTECTOR

M BLOCK (8/8)

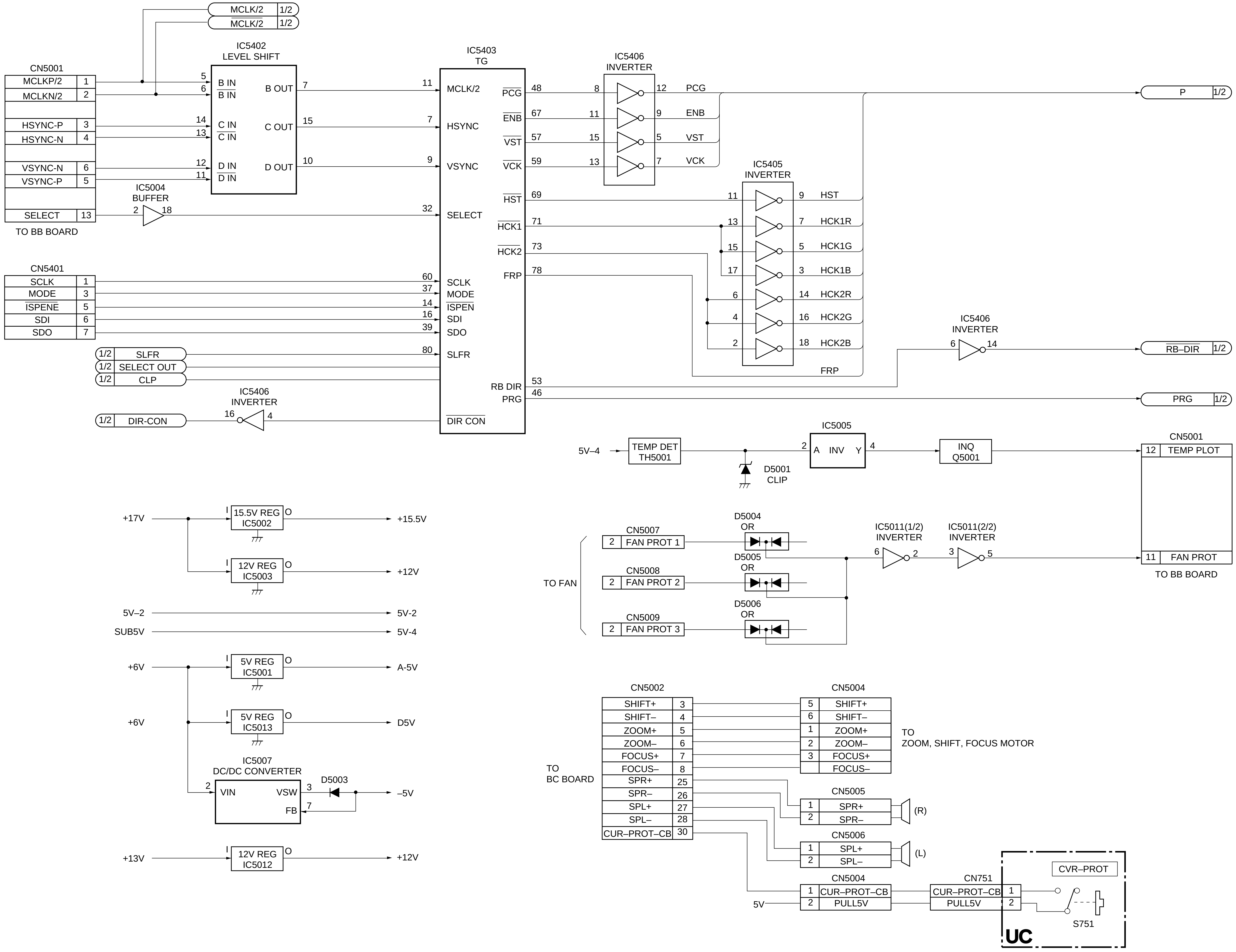
A | B | C | D | E | F | G | H


CN5001
R D/A Q 21
G D/A Q 23
B D/A Q 25
R D/A I 22
G D/A I 24
B D/A I 26
AGC D/A R 14
SDA 7
SCL 8
CRESET 10
TO BB BOARD
R : IC5008
G : IC5009
B : IC5010
SWITCH
2/2 SELECT
R : IC5201
G : IC5202
B : IC5203
AMP
A–5V
IC5609
VOLT REF
R : IC5808
G : IC5604
B : IC5804
VOLT REF
R : IC5805
G : IC5603
B : IC5801
SWITCH
7, 14
CLP 2/2
IC5004
BUFFER
R : IC5204(2/2)
G : IC5205(2/2)
B : IC5206(2/2)
AMP
IC5207
SWITCH
6, 7, 14
R : IC5209(1/2)
G : IC5210(1/2)
B : IC5211(1/2)
AMP
R : IC5209(2/2)
G : IC5210(2/2)
B : IC5211(2/2)
AMP
A–5V
IC5208
V REF
CN5001
18 RED–FB
19 GREEN–FB
20 BLUE–FB
TO BB BOARD
IC5602
D/A
SDA
SCL
A01
A02
A03
A04
D7/A05
D6/A06
D3/A09
D2/A010
D5/A07
D4/A08
POS–CON1
POS–CON2
INVC
R DLY–C
G DLY–C
B DLY–C
BUFFER Q5601
BUFFER Q5602
IC5601(1/2)
AND
IC5601(2/2)
AND
2/2 P
SLFR 2/2
2/2 DIR–CON
2/2 RB–DIR
G:
R, B:
IC5606
SWITCH
2/2 PRG
IC5605
D/A
SCL
SDA
IOC
A05
A04
A03
A02
A01
SID OFSET
SCEN
B–VCOM
G–VCOM
R–VCOM
2/2 MCLK/2
2/2 MCLK/2
R : IC5806
G : IC5607
B : IC5802
LCD DRIVER
R/G/B 47 VIDEO IN
FRP 44 FRP
ENB 12 ENB
13 DIR–CNT
POS–CON1 1 POS–CNT1
POS–CON2 2 POS–CNT2
INVC 52 INV–CNT
R/G/B DLY–C 49 DLY–CNT
39 SID IN
62 PRG
48 OFFSET
42 SID–OFST
35 SIG CEN
34 V COM OFST
50 MCLK
51 MCLK
SID-OUT 38
VCOM OUT 33
SH-OUT1 31
SH-OUT2 29
SH-OUT3 27
SH-OUT4 21
SH-OUT5 19
SH-OUT6 17
R : Q5804-5806
G : Q5603-5605
B : Q5801-5803
BUFFER
R : CN5802
G : CN5601
B : CN5801
26 DWN
21 COM L
2 COM R
1 PSIG
32 COM
3 VSIG1
5 VSIG3
7 VSIG5
9 VSIG7
11 VSIG9
13 VSIG11
DIR-CON 16 RGT
HST 17 HST
HCK2 R/G/B 18 HCK2
HCK1 R/G/B 19 HCK1
ENB 23 ENB
VCK 24 VCK
VST 25 VST
4 VSIG2
6 VSIG4
8 VSIG6
10 VSIG8
12 VSIG10
14 VSIG12
PCG 29 PCG
TO LCD PANEL
R:IC5807
G:IC5608
B:IC5803
LCD DRIVER
R/G/B 47 VIDEO IN
13 DIR–CNT
POS–CON1 1 POS–CNT1
POS–CON2 2 POS–CNT2
R/G/B DLY–C 49 DLY–CNT
ENB 12 ENB
FRP 44 FRP
62 PRG
42 SID–OFST
48 OFFSET
35 SIG CEN
INVC 52 INV-CNT
50 MCLK
51 MCLK
SH-OUT1 31
SH-OUT2 29
SH-OUT3 27
SH-OUT4 21
SH-OUT5 19
SH-OUT6 17

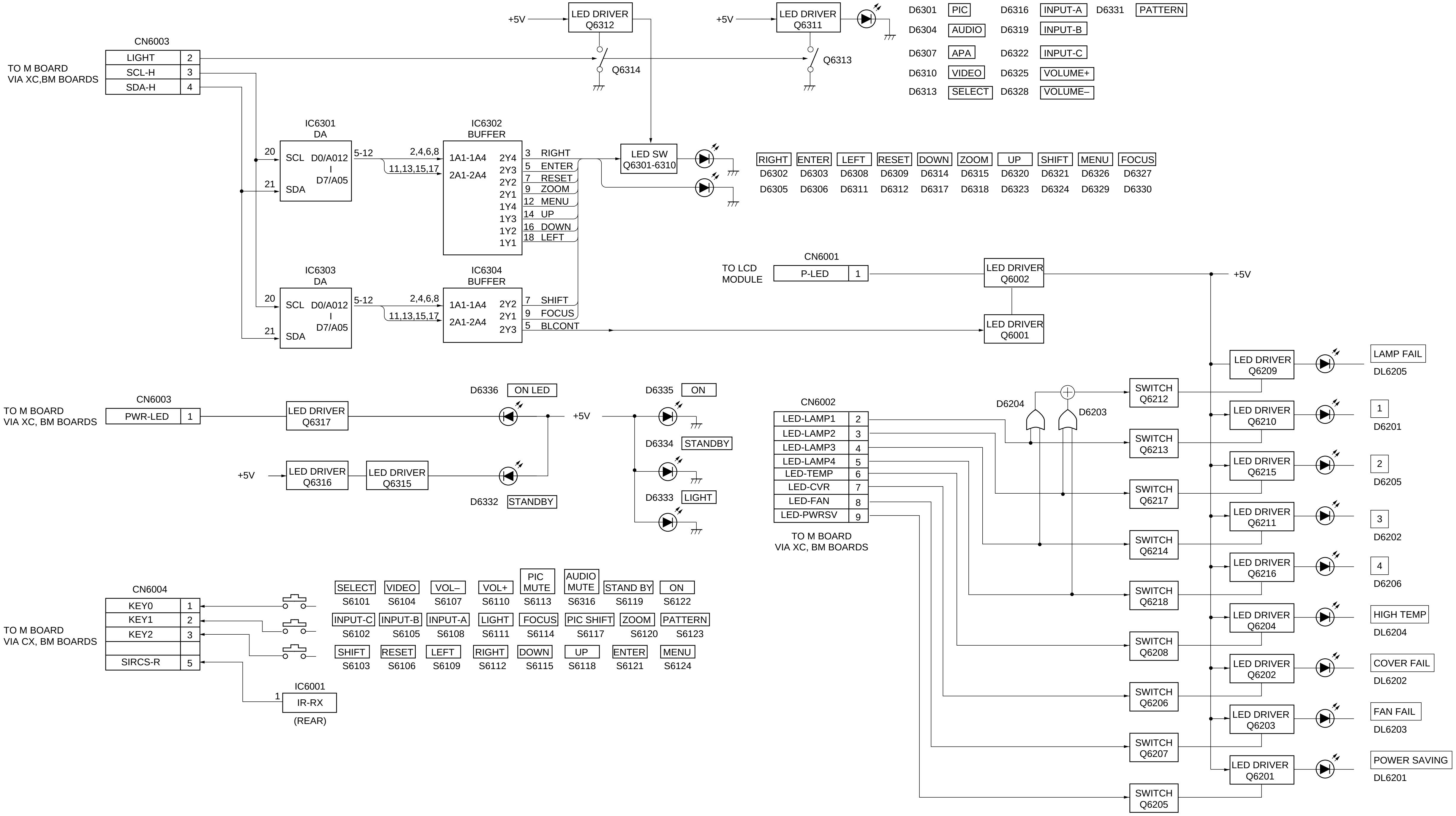
C BLOCK (1/2)

1
2
3
4
5

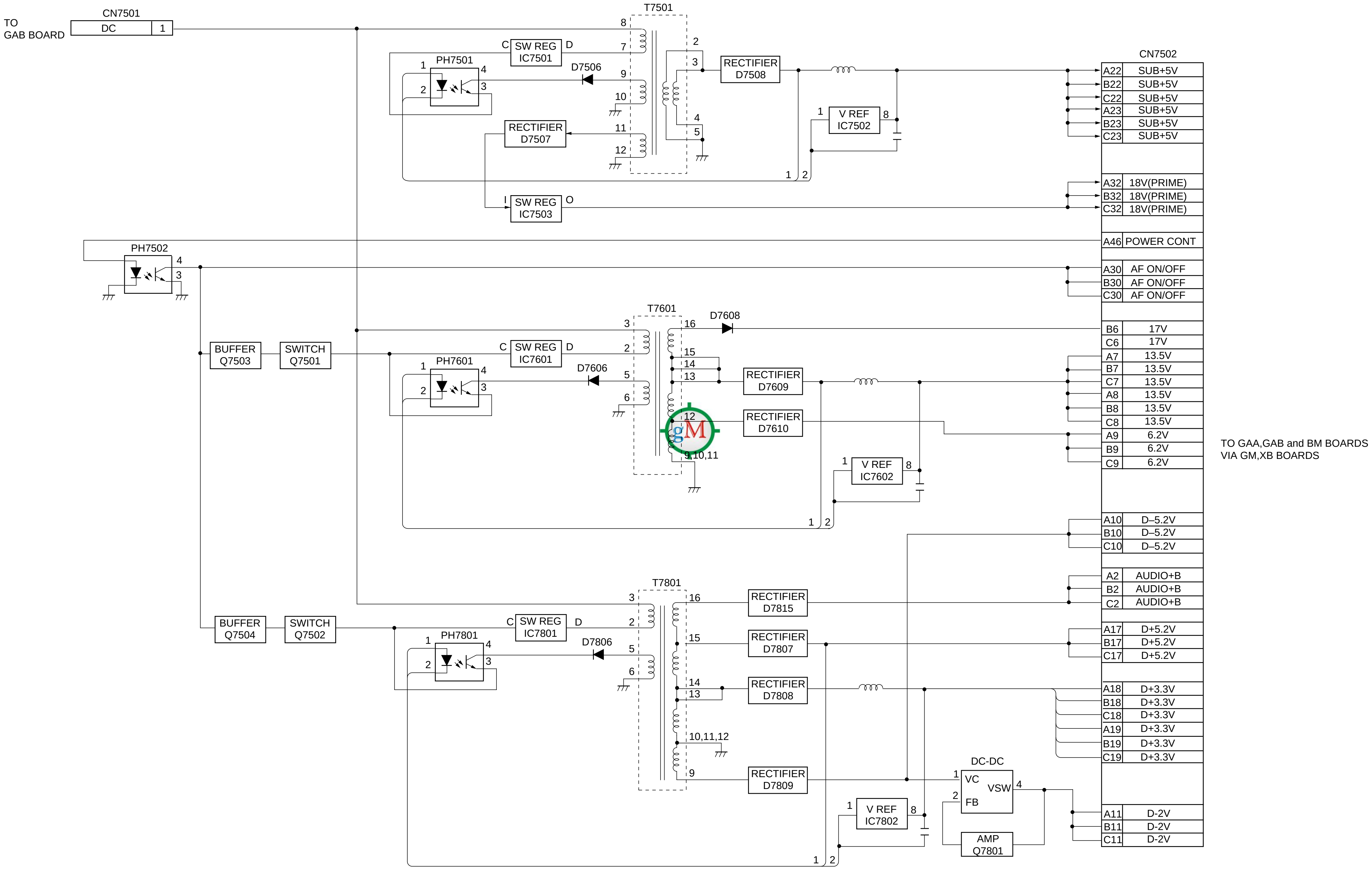
A B C D E F G H


CN5001
MCLKP/2 1
MCLKN/2 2
HSYNC-P 3
HSYNC-N 4
VSYNC-N 6
VSYNC-P 5
SELECT 13
TO BB BOARD
MCLK/2 1/2
MCLK/2 1/2
IC5402
LEVEL SHIFT
B IN
B IN
B OUT
C IN
C IN
C OUT
D IN
D IN
D OUT
IC5004
BUFFER
IC5403
TG
MCLK/2
HSYNC
VSYNC
SELECT
SCLK
MODE
ISPEN
SDI
SDO
SLFR
DIR CON
PCG
ENB
VST
VCK
HST
HCK1
HCK2
FRP
RB DIR
PRG
IC5406
INVERTER
PCG
ENB
VST
VCK
IC5405
INVERTER
HST
HCK1R
HCK1G
HCK1B
HCK2R
HCK2G
HCK2B
FRP
P 1/2
RB–DIR 1/2
PRG 1/2
CN5401
SCLK 1
MODE 3
ISPENE 5
SDI 6
SDO 7
1/2 SLFR
1/2 SELECT OUT
1/2 CLP
1/2 DIR-CON
IC5406
INVERTER
IC5005
A INV Y
5V–4
TEMP DET
TH5001
D5001
CLIP
INQ
Q5001
CN5001
12 TEMP PLOT
11 FAN PROT
TO BB BOARD
+17V
15.5V REG
IC5002
+15.5V
12V REG
IC5003
+12V
5V–2
5V-2
SUB5V
5V-4
+6V
5V REG
IC5001
A-5V
+6V
5V REG
IC5013
D5V
IC5007
DC/DC CONVERTER
VIN
VSW
FB
D5003
–5V
+13V
12V REG
IC5012
+12V
TO FAN
CN5007
2 FAN PROT 1
CN5008
2 FAN PROT 2
CN5009
2 FAN PROT 3
D5004
OR
D5005
OR
D5006
OR
IC5011(1/2)
INVERTER
IC5011(2/2)
INVERTER
CN5002
SHIFT+ 3
SHIFT– 4
ZOOM+ 5
ZOOM– 6
FOCUS+ 7
FOCUS– 8
SPR+ 25
SPR– 26
SPL+ 27
SPL– 28
CUR–PROT–CB 30
TO
BC BOARD
CN5004
5 SHIFT+
6 SHIFT–
1 ZOOM+
2 ZOOM–
3 FOCUS+
FOCUS–
TO
ZOOM, SHIFT, FOCUS MOTOR
CN5005
1 SPR+
2 SPR–
(R)
CN5006
1 SPL+
2 SPL–
(L)
CN5004
1 CUR–PROT–CB
2 PULL5V
5V
CN751
CUR–PROT–CB 1
PULL5V 2
CVR–PROT
S751
UC

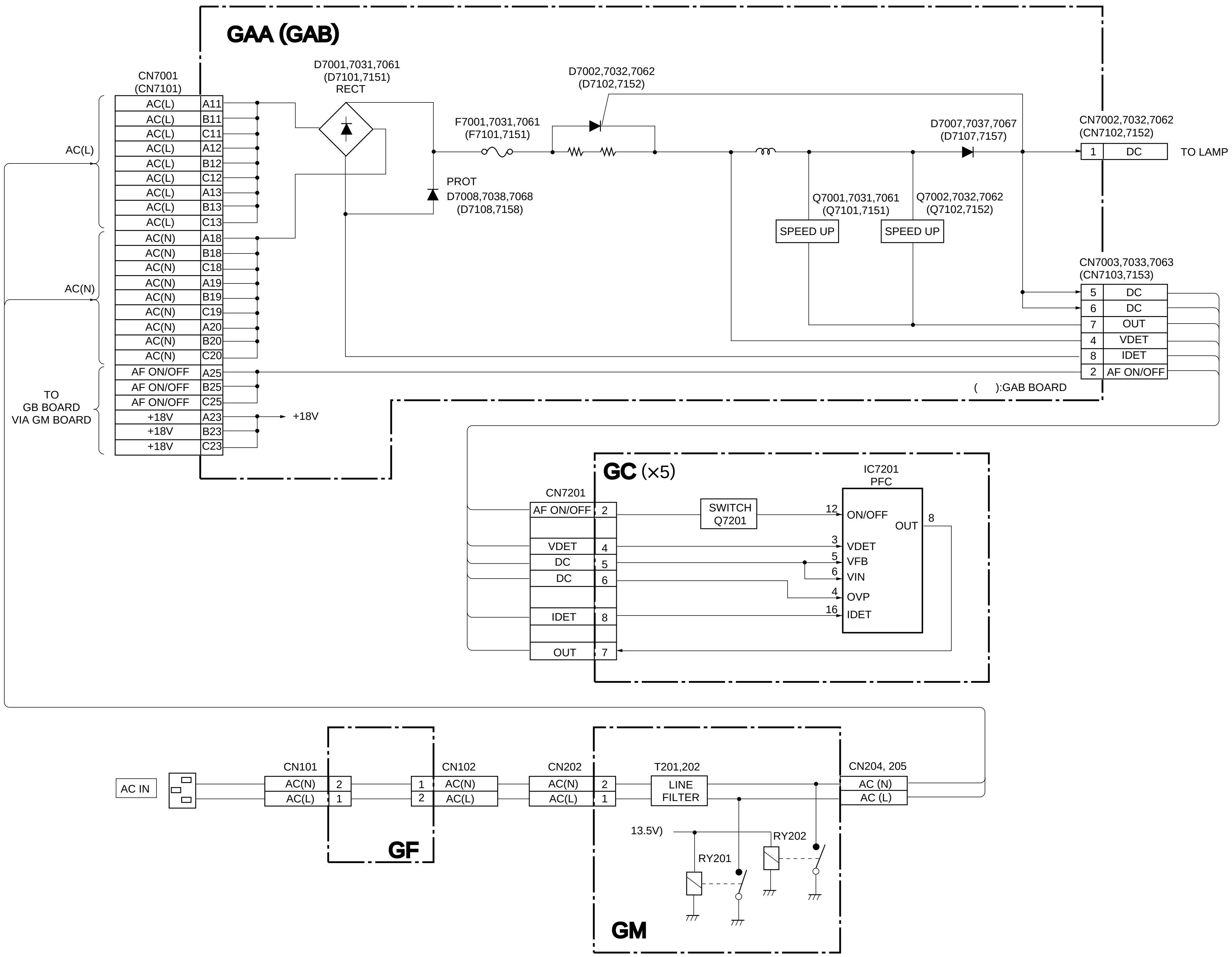
C (2/2), UC BLOCK


TO M BOARD
VIA XC,BM BOARDS
CN6003
LIGHT 2
SCL-H 3
SDA-H 4
+5V
LED DRIVER
Q6312
Q6314
LED DRIVER
Q6311
Q6313
D6301 PIC
D6304 AUDIO
D6307 APA
D6310 VIDEO
D6313 SELECT
D6316 INPUT-A
D6319 INPUT-B
D6322 INPUT-C
D6325 VOLUME+
D6328 VOLUME–
D6331 PATTERN
IC6301
DA
SCL D0/A012 I D7/A05
SDA
20
21
5-12
IC6302
BUFFER
2,4,6,8
11,13,15,17
1A1-1A4
2A1-2A4
2Y4 2Y3 2Y2 2Y1 1Y4 1Y3 1Y2 1Y1
3 RIGHT
5 ENTER
7 RESET
9 ZOOM
12 MENU
14 UP
16 DOWN
18 LEFT
LED SW
Q6301-6310
RIGHT ENTER LEFT RESET DOWN ZOOM UP SHIFT MENU FOCUS
D6302 D6303 D6308 D6309 D6314 D6315 D6320 D6321 D6326 D6327
D6305 D6306 D6311 D6312 D6317 D6318 D6323 D6324 D6329 D6330
IC6303
DA
IC6304
BUFFER
2Y2 2Y1 2Y3
7 SHIFT
9 FOCUS
5 BLCONT
TO LCD
MODULE
CN6001
P-LED 1
LED DRIVER
Q6002
LED DRIVER
Q6001
TO M BOARD
VIA XC, BM BOARDS
CN6003
PWR-LED 1
LED DRIVER
Q6317
D6336 ON LED
D6335 ON
D6334 STANDBY
D6333 LIGHT
LED DRIVER
Q6316
LED DRIVER
Q6315
D6332 STANDBY
CN6002
LED-LAMP1 2
LED-LAMP2 3
LED-LAMP3 4
LED-LAMP4 5
LED-TEMP 6
LED-CVR 7
LED-FAN 8
LED-PWRSV 9
TO M BOARD
VIA XC, BM BOARDS
D6204
D6203
SWITCH Q6212
SWITCH Q6213
SWITCH Q6217
SWITCH Q6214
SWITCH Q6218
SWITCH Q6208
SWITCH Q6206
SWITCH Q6207
SWITCH Q6205
LED DRIVER Q6209
LED DRIVER Q6210
LED DRIVER Q6215
LED DRIVER Q6211
LED DRIVER Q6216
LED DRIVER Q6204
LED DRIVER Q6202
LED DRIVER Q6203
LED DRIVER Q6201
LAMP FAIL
DL6205
1
D6201
2
D6205
3
D6202
4
D6206
HIGH TEMP
DL6204
COVER FAIL
DL6202
FAN FAIL
DL6203
POWER SAVING
DL6201
TO M BOARD
VIA CX, BM BOARDS
CN6004
KEY0 1
KEY1 2
KEY2 3
SIRCS-R 5
SELECT VIDEO VOL– VOL+ PIC MUTE AUDIO MUTE STAND BY ON
S6101 S6104 S6107 S6110 S6113 S6116 S6119 S6122
INPUT-C INPUT-B INPUT-A LIGHT FOCUS PIC SHIFT ZOOM PATTERN
S6102 S6105 S6108 S6111 S6114 S6117 S6120 S6123
SHIFT RESET LEFT RIGHT DOWN UP ENTER MENU
S6103 S6106 S6109 S6112 S6115 S6118 S6121 S6124
IC6001
1
IR-RX
(REAR)

H BLOCK


TO
GAB BOARD
CN7501
DC
1
T7501
SW REG
IC7501
C
D
PH7501
D7506
RECTIFIER
D7507
RECTIFIER
D7508
V REF
IC7502
SW REG
IC7503
I
O
PH7502
BUFFER
Q7503
SWITCH
Q7501
T7601
D7608
SW REG
IC7601
PH7601
D7606
RECTIFIER
D7609
RECTIFIER
D7610
V REF
IC7602
9,10,11
T7801
BUFFER
Q7504
SWITCH
Q7502
SW REG
IC7801
PH7801
D7806
RECTIFIER
D7815
RECTIFIER
D7807
RECTIFIER
D7808
RECTIFIER
D7809
10,11,12
V REF
IC7802
DC-DC
VC
VSW
FB
AMP
Q7801
CN7502
A22 SUB+5V
B22 SUB+5V
C22 SUB+5V
A23 SUB+5V
B23 SUB+5V
C23 SUB+5V
A32 18V(PRIME)
B32 18V(PRIME)
C32 18V(PRIME)
A46 POWER CONT
A30 AF ON/OFF
B30 AF ON/OFF
C30 AF ON/OFF
B6 17V
C6 17V
A7 13.5V
B7 13.5V
C7 13.5V
A8 13.5V
B8 13.5V
C8 13.5V
A9 6.2V
B9 6.2V
C9 6.2V
A10 D–5.2V
B10 D–5.2V
C10 D–5.2V
A2 AUDIO+B
B2 AUDIO+B
C2 AUDIO+B
A17 D+5.2V
B17 D+5.2V
C17 D+5.2V
A18 D+3.3V
B18 D+3.3V
C18 D+3.3V
A19 D+3.3V
B19 D+3.3V
C19 D+3.3V
A11 D-2V
B11 D-2V
C11 D-2V
TO GAA,GAB and BM BOARDS
VIA GM,XB BOARDS

GB BLOCK

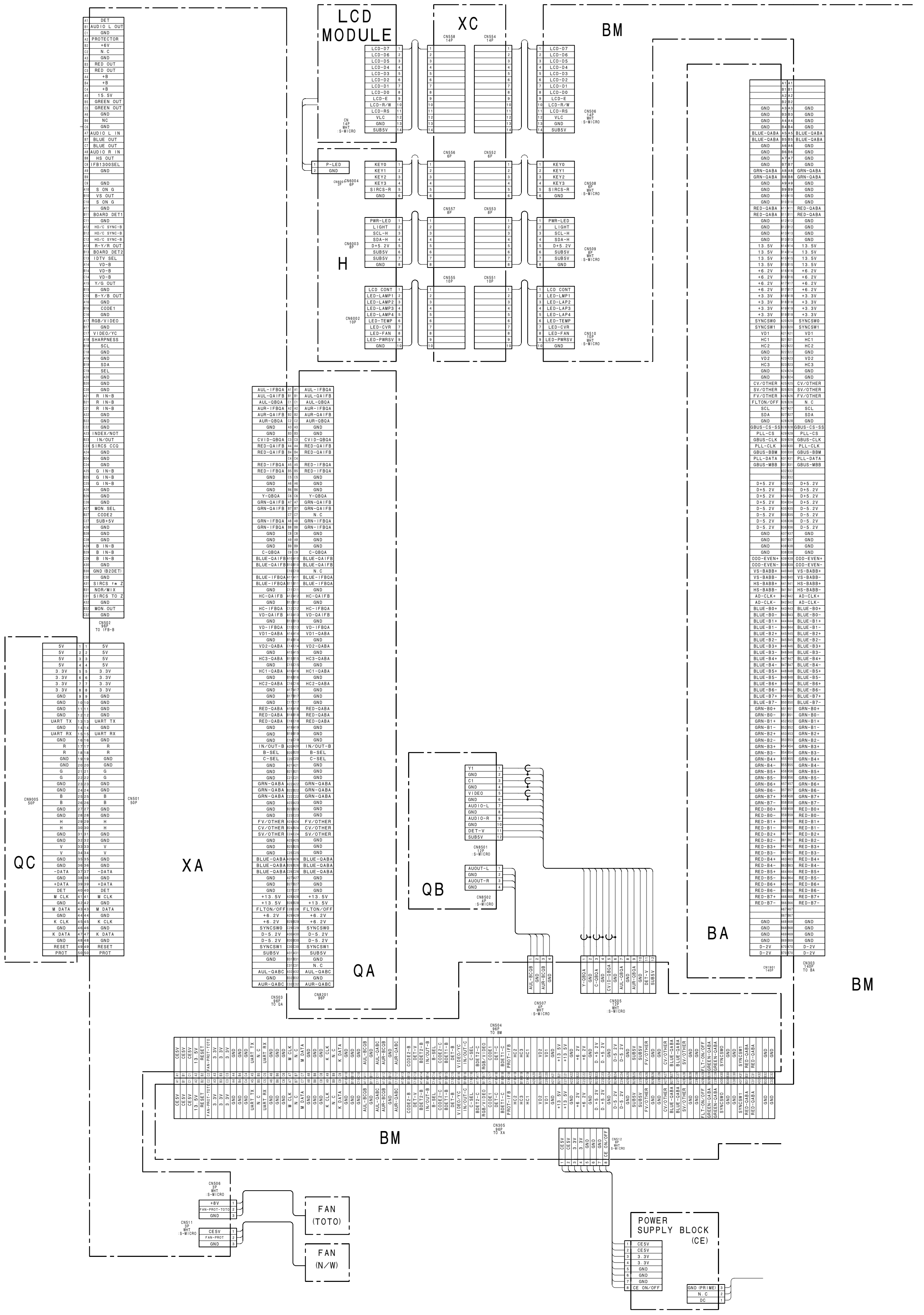

GAA (GAB)
CN7001
(CN7101)
AC(L) A11
AC(L) B11
AC(L) C11
AC(L) A12
AC(L) B12
AC(L) C12
AC(L) A13
AC(L) B13
AC(L) C13
AC(N) A18
AC(N) B18
AC(N) C18
AC(N) A19
AC(N) B19
AC(N) C19
AC(N) A20
AC(N) B20
AC(N) C20
AF ON/OFF A25
AF ON/OFF B25
AF ON/OFF C25
+18V A23
+18V B23
+18V C23
AC(L)
AC(N)
TO
GB BOARD
VIA GM BOARD
+18V
D7001,7031,7061
(D7101,7151)
RECT
D7002,7032,7062
(D7102,7152)
F7001,7031,7061
(F7101,7151)
PROT
D7008,7038,7068
(D7108,7158)
D7007,7037,7067
(D7107,7157)
Q7001,7031,7061
(Q7101,7151)
Q7002,7032,7062
(Q7102,7152)
SPEED UP
SPEED UP
CN7002,7032,7062
(CN7102,7152)
1 DC
TO LAMP
CN7003,7033,7063
(CN7103,7153)
5 DC
6 DC
7 OUT
4 VDET
8 IDET
2 AF ON/OFF
( ):GAB BOARD
GC (×5)
CN7201
AF ON/OFF 2
VDET 4
DC 5
DC 6
IDET 8
OUT 7
SWITCH
Q7201
IC7201
PFC
12 ON/OFF
3 VDET
5 VFB
6 VIN
4 OVP
16 IDET
OUT 8
AC IN
CN101
AC(N) 2
AC(L) 1
CN102
1 AC(N)
2 AC(L)
GF
CN202
AC(N) 2
AC(L) 1
T201,202
LINE
FILTER
13.5V)
RY201
RY202
CN204, 205
AC (N)
AC (L)
GM

GAA (GAB), GC, GF, GM BLOCK

FRAME (1/2)

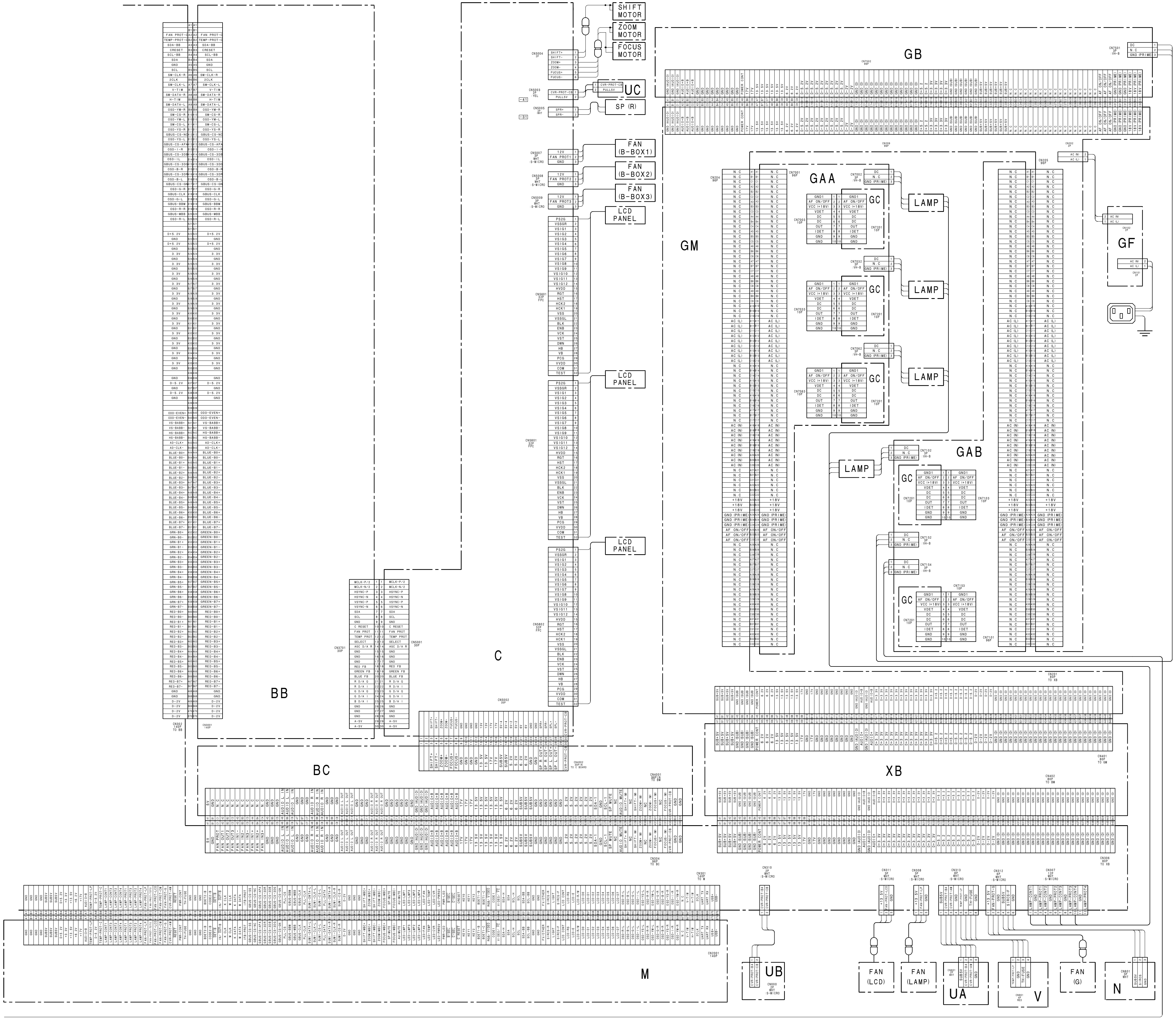
Section 10
Diagrams

10-1. Frame Schematic Diagram


LCD MODULE
XC
BM
H
XA
QA
QC
QB
BA
BM
BM
FAN (TOTO)
FAN (N/W)
POWER SUPPLY BLOCK (CE)
1
2
3
4
5
A
B
C
D
E
F
G
H

10-1

FRAME (2/2) FRAME (2/2)


1
2
3
4
5
SHIFT MOTOR
ZOOM MOTOR
FOCUS MOTOR
UC
SP (R)
FAN (B-BOX1)
FAN (B-BOX2)
FAN (B-BOX3)
LCD PANEL
LCD PANEL
LCD PANEL
GB
GAA
GAB
GM
GF
GC
GC
GC
GC
GC
LAMP
LAMP
LAMP
LAMP
BB
C
BC
XB
M
UB
FAN (LCD)
FAN (LAMP)
UA
V
FAN (G)
N
A
B
C
D
E
F
G
H

10-2

http://getMANUAL.com

10-2. Schematic Diagrams and Printed Wiring Boards

Note:

- Parts marked “ * ” differ according to the model/destination. Refer to the mount table for each function.
- The parts marked “ # ” on schematic diagrams are not mounted.
- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50 V unless otherwise specified.
- : fusible resistor
- : nonflammable resistor
- : panel designation and adjustment for repair
- Caution when replacing chip parts
  New parts must be attached after removal of the chip.
  Be careful not to heat the minus side of a tantalum capacitor, because it is easily damaged by the heat.

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
		: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

[Measuring conditions, voltage and waveform]

- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal is received from the color bar generator (digital multi-meter used: 10 M ohms/ V DC).
- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal and RGB color bar signal are received from the color bar generator (digital multi-meter used: 10 M ohms/V DC).
- Unit of voltage is V (volt).
- V : B+line
  V : B– line
- Voltage variations may occur due to normal production tolerances.
- No mark : NTSC (3.58 MHz) color bar signal.
- [ ] : RGB color bar signal is received.
- Circled numbers indicate the reference waveform.
- ⇨ : Signal path.

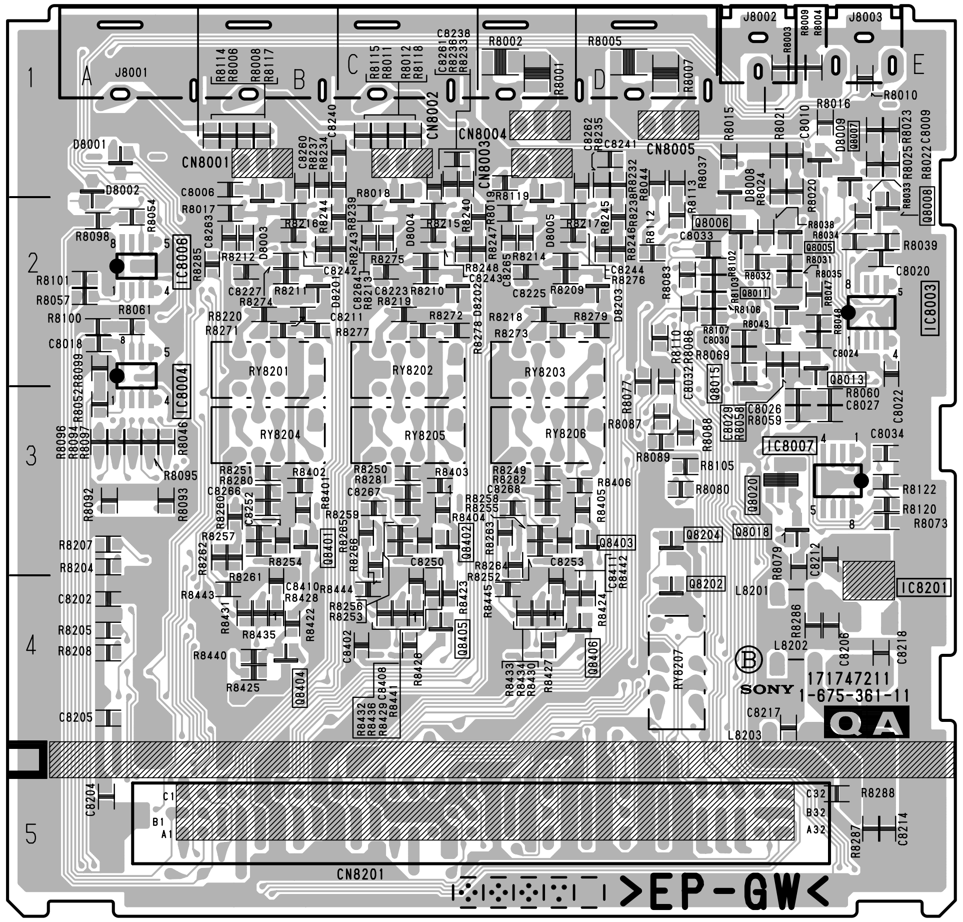
The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

—
QA
—
1-675-361-11

IC8001		A-2
IC8002		A-3
IC8003	*	E-2
IC8004	*	A-2
IC8005		E-2
IC8006	*	A-2
IC8007	*	E-3
IC8008		D-2
IC8009		E-3
IC8010		D-3
IC8201	*	E-4
IC8202		A-5
IC8203		A-4
IC8204		A-4
IC8205		E-4
IC8206		B-2
IC8207		B-2
IC8208		C-2
IC8212		B-2
IC8213		C-2
IC8214		D-2
IC8215		B-3
IC8216		B-3
IC8217		C-3
IC8401		B-4
IC8402		B-4
IC8403		C-4
Q8001		E-1
Q8002		E-1
Q8005	*	E-2
Q8006	*	D-2
Q8007	*	E-1
Q8008	*	E-1
Q8011	*	E-2
Q8012		E-2
Q8013	*	E-2
Q8014		E-3
Q8015	*	D-2
Q8016		E-3
Q8017		D-2
Q8018	*	E-3
Q8019		E-3
Q8020	*	E-3
Q8201		D-3
Q8202	*	D-4
Q8203		D-3
Q8204	*	D-3
Q8205		D-4
Q8206		D-3
Q8401	*	B-3
Q8402	*	C-3
Q8403	*	D-3
Q8404	*	B-4
Q8405	*	C-4
Q8406	*	D-4
TP8001		A-2
TP8002		A-2
TP8003		A-2
TP8004		A-2
TP8005		D-3
TP8006		E-3
TP8007		E-3
TP8010		E-3
TP8011		D-1
TP8012		A-3
TP8201		C-4
TP8202		C-4
TP8203		B-4
TP8204		C-4
TP8205		C-4
TP8206		D-5
TP8207		D-4

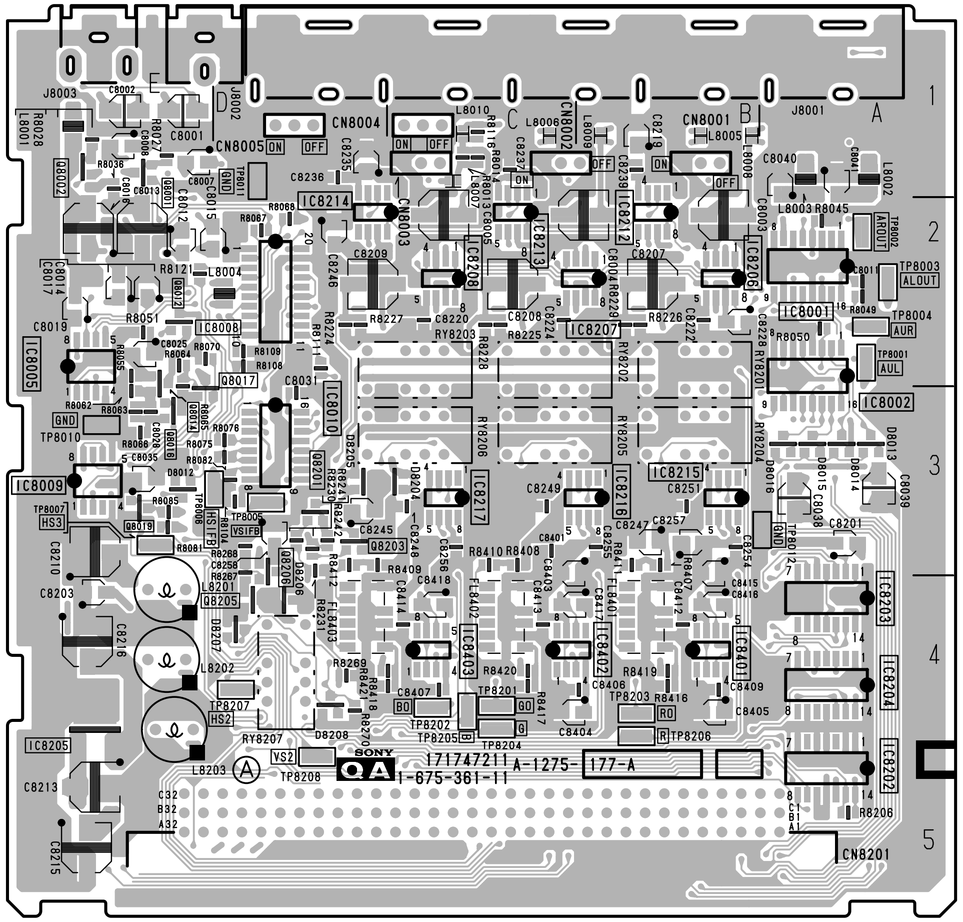
*:B Side mount



J8001
J8002
J8003
CN8001
CN8002
CN8004
CN8005
CN8201
RY8201
RY8202
RY8203
RY8204
RY8205
RY8206
RY8207
IC8003
IC8004
IC8006
IC8007
IC8201
SONY
171747211
1-675-361-11
QA
>EP-GW<

QA – B SIDE –

SUFFIX ; -11

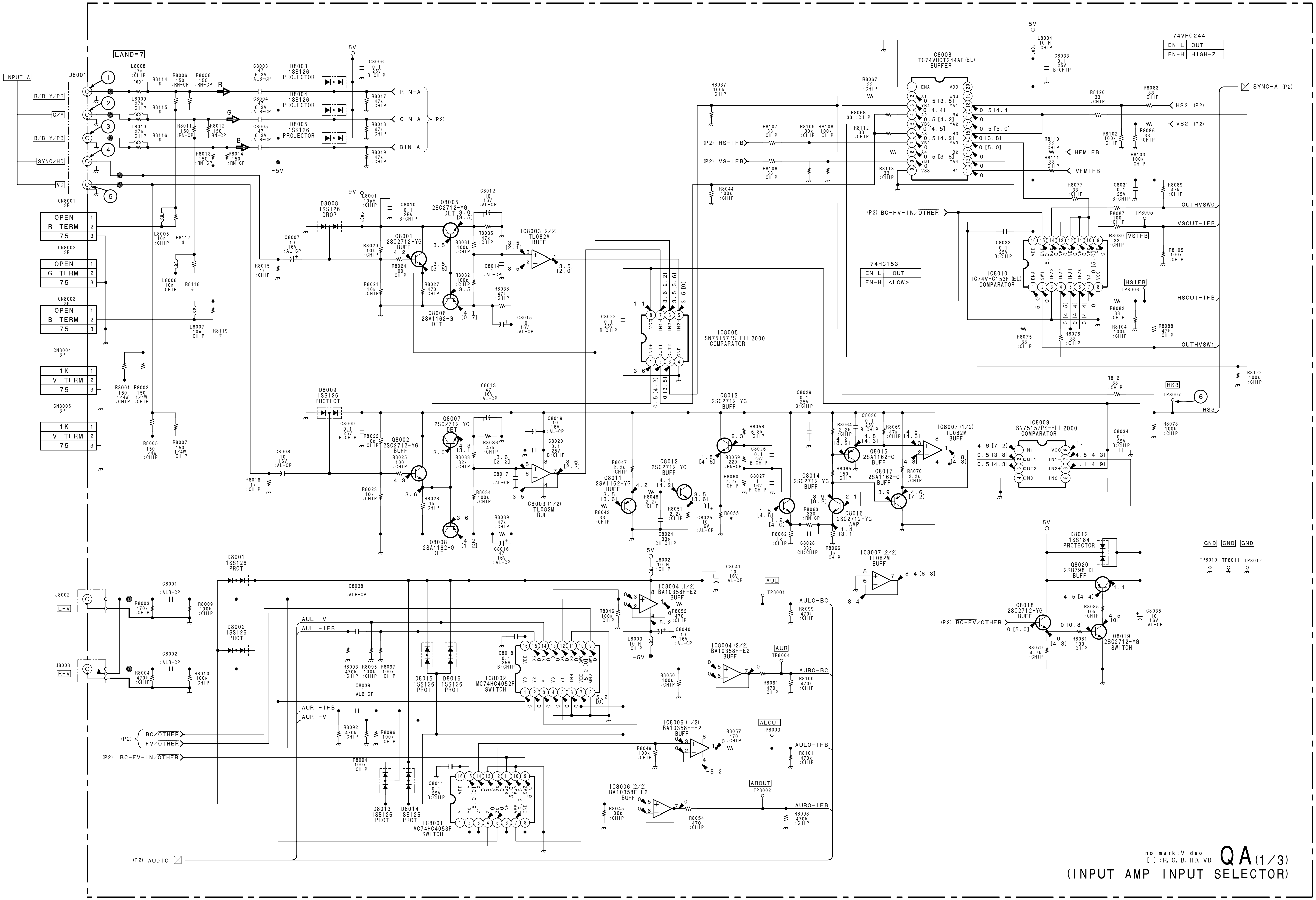


J8001
J8002
J8003
CN8001
CN8002
CN8004
CN8005
CN8201
IC8001
IC8002
IC8005
IC8008
IC8009
IC8010
IC8202
IC8203
IC8204
IC8205
IC8206
IC8207
IC8208
IC8212
IC8213
IC8214
IC8215
IC8216
IC8217
IC8401
IC8402
IC8403
SONY
QA
171747211
1-675-361-11
A-1275-177-A

QA – A SIDE –

SUFFIX ; -11

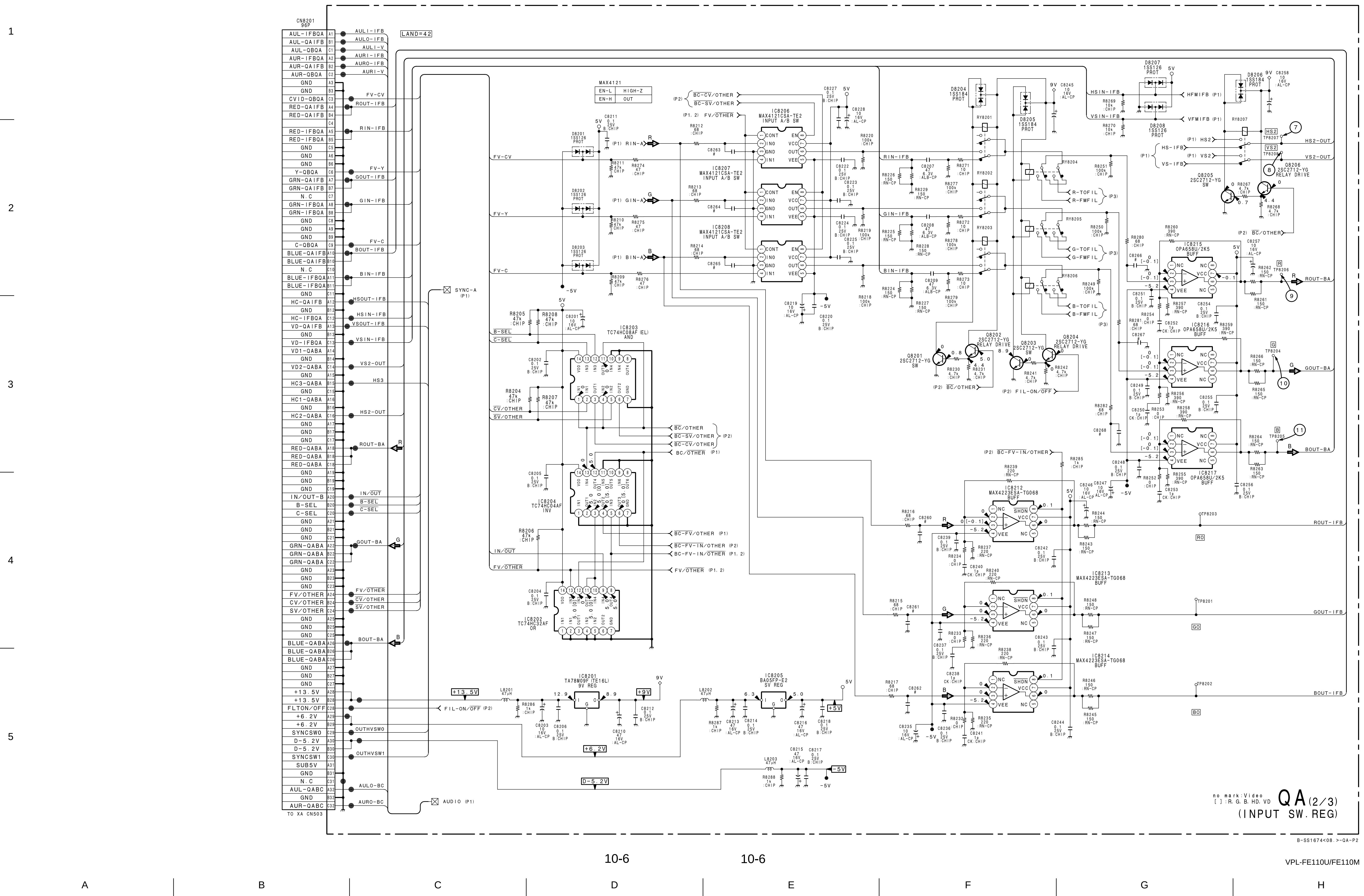
- Refer to page 10-4 for Printed Wiring Board
- Refer to page 10-7 for Waveforms
- Refer to page 10-8 for IC Block Diagrams


INPUT A
J8001
R/R-Y/PR
G/Y
B/B-Y/PB
SYNC/HD
VD
LAND=7
CN8001 3P
OPEN
R TERM
75
CN8002 3P
G TERM
CN8003 3P
B TERM
CN8004 3P
1K
V TERM
CN8005 3P
D8003 1SS126 PROJECTOR
D8004 1SS126 PROJECTOR
D8005 1SS126 PROJECTOR
RIN-A
GIN-A
BIN-A
(P2)
5V
-5V
9V
D8008 1SS126 DROP
D8009 1SS126 PROTECT
Q8001 2SC2712-YG BUFF
Q8005 2SC2712-YG DET
Q8006 2SA1162-G DET
Q8002 2SC2712-YG BUFF
Q8007 2SC2712-YG DET
Q8008 2SA1162-G DET
IC8003 (2/2) TL082M BUFF
IC8003 (1/2) TL082M BUFF
IC8005 SN75157PS-ELL2000 COMPARATOR
IC8008 TC74VHCT244AF(EL) BUFFER
74VHC244
EN-L OUT
EN-H HIGH-Z
SYNC-A (P2)
HS2 (P2)
VS2 (P2)
(P2) HS-IFB
(P2) VS-IFB
HFMIFB
VFMIFB
(P2) BC-FV-IN/OTHER
74HC153
EN-L OUT
EN-H <LOW>
IC8010 TC74VHC153F(EL) COMPARATOR
OUTHVSW0
VSOUT-IFB
VSIFB
HSIFB
HSOUT-IFB
OUTHVSW1
HS3
TP8007
Q8013 2SC2712-YG BUFF
Q8011 2SA1162-YG BUFF
Q8012 2SC2712-YG BUFF
Q8014 2SC2712-YG BUFF
Q8015 2SA1162-G BUFF
Q8016 2SC2712-YG AMP
Q8017 2SA1162-G BUFF
IC8007 (1/2) TL082M BUFF
IC8007 (2/2) TL082M BUFF
IC8009 SN75157PS-ELL2000 COMPARATOR
D8012 1SS184 PROTECTOR
Q8020 2SB798-DL BUFF
Q8018 2SC2712-YG BUFF
Q8019 2SC2712-YG SWITCH
(P2) BC-FV/OTHER
GND GND GND
TP8010 TP8011 TP8012
J8002
L-V
J8003
R-V
D8001 1SS126 PROT
D8002 1SS126 PROT
AULI-V
AULI-IFB
AURI-IFB
AURI-V
D8015 1SS126 PROT
D8016 1SS126 PROT
D8013 1SS126 PROT
D8014 1SS126 PROT
IC8002 MC74HC4052F SWITCH
IC8001 MC74HC4053F SWITCH
IC8004 (1/2) BA10358F-E2 BUFF
IC8004 (2/2) BA10358F-E2 BUFF
IC8006 (1/2) BA10358F-E2 BUFF
IC8006 (2/2) BA10358F-E2 BUFF
AUL TP8001 AULO-BC
AUR TP8004 AURO-BC
ALOUT TP8003 AULO-IFB
AROUT TP8002 AURO-IFB
(P2) BC/OTHER
FV/OTHER
(P2) BC-FV-IN/OTHER
(P2) AUDIO
1
2
3
4
5

no mark:Video
[ ]:R.G.B.HD.VD
QA(1/3)
(INPUT AMP INPUT SELECTOR)

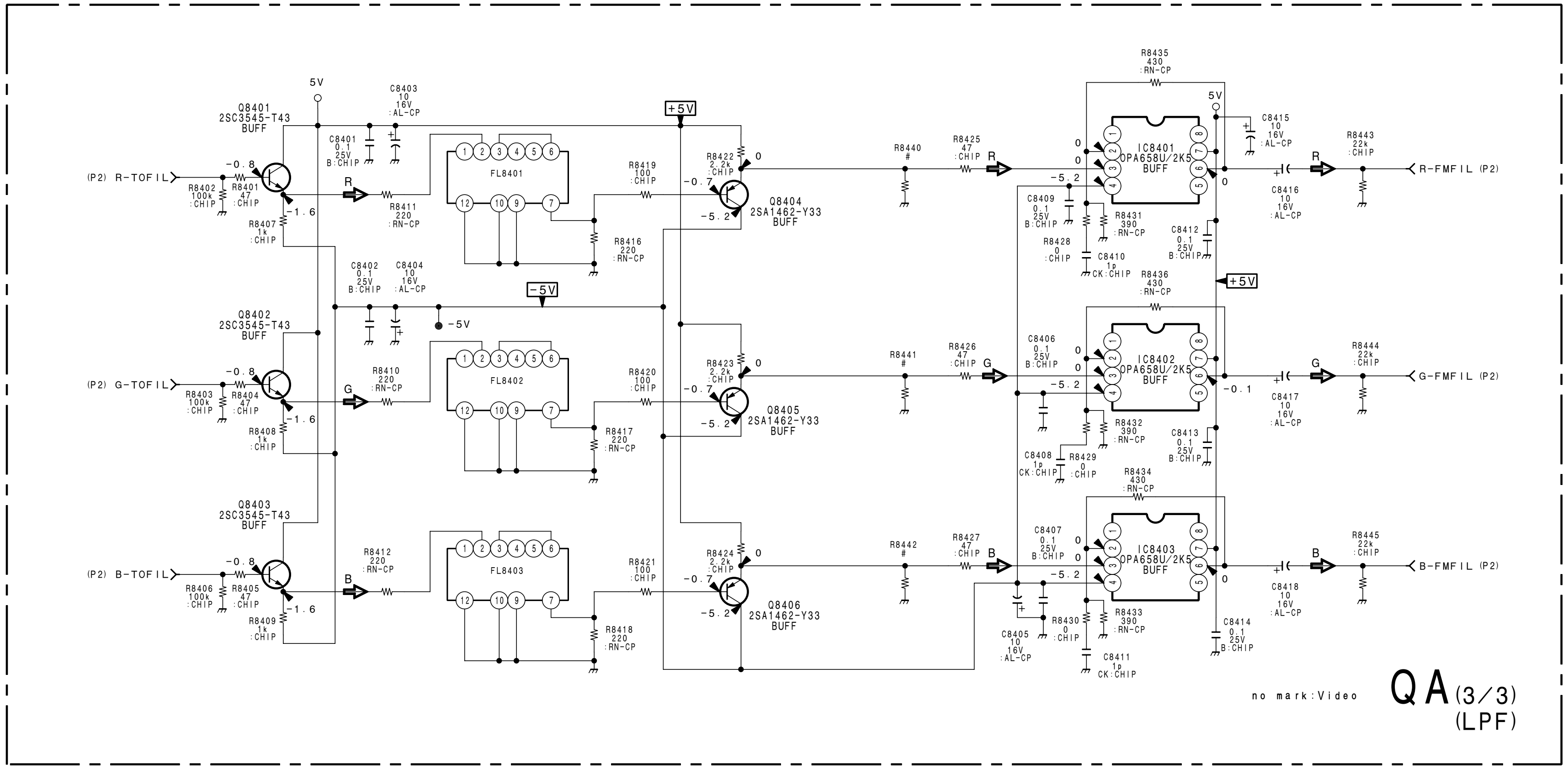
QA (2/3) QA (2/3)

- Refer to page 10-4 for Printed Wiring Board
- Refer to page 10-7 for Waveforms
- Refer to page 10-8 for IC Block Diagrams



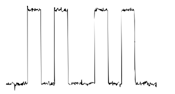
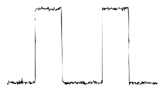
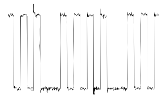
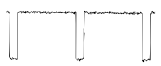
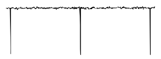
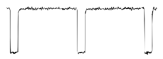
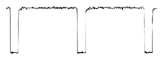
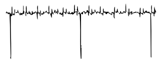
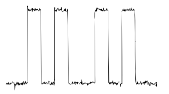
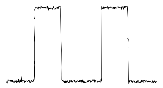
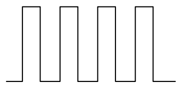
1
2
3
4
5
A
B
C
D
E
F
G
H
CN8201 96P
TO XA CN503
LAND=42
AUL-IFBQA
AUL-QAIFB
AUL-QBQA
AUR-IFBQA
AUR-QAIFB
AUR-QBQA
CVID-QBQA
RED-QAIFB
RED-IFBQA
Y-QBQA
GRN-QAIFB
GRN-IFBQA
C-QBQA
BLUE-QAIFB
BLUE-IFBQA
HC-QAIFB
HC-IFBQA
VD-QAIFB
VD-IFBQA
VD1-QABA
VD2-QABA
HC3-QABA
HC1-QABA
HC2-QABA
RED-QABA
IN/OUT-B
B-SEL
C-SEL
GRN-QABA
FV/OTHER
CV/OTHER
SV/OTHER
BLUE-QABA
+13.5V
FLTON/OFF
+6.2V
SYNCSW0
D-5.2V
SYNCSW1
SUB5V
AUL-QABC
AUR-QABC
GND
N.C
SYNC-A (P1)
AUDIO (P1)
MAX4121
EN-L HIGH-Z
EN-H OUT
IC8206 MAX4121CSA-TE2 INPUT A/B SW
IC8207 MAX4121CSA-TE2 INPUT A/B SW
IC8208 MAX4121CSA-TE2 INPUT A/B SW
IC8203 TC74HC08AF(EL) AND
IC8204 TC74HC04AF INV
IC8202 TC74HC32AF OR
IC8201 TA78M09F(TE16L) 9V REG
IC8205 BA05FP-E2 5V REG
IC8212 MAX4223ESA-TG068 BUFF
IC8213 MAX4223ESA-TG068 BUFF
IC8214 MAX4223ESA-TG068 BUFF
IC8215 OPA658U/2K5 BUFF
IC8216 OPA658U/2K5 BUFF
IC8217 OPA658U/2K5 BUFF
Q8201 2SC2712-YG SW
Q8202 2SC2712-YG RELAY DRIVE
Q8203 2SC2712-YG SW
Q8204 2SC2712-YG RELAY DRIVE
Q8205 2SC2712-YG SW
Q8206 2SC2712-YG RELAY DRIVE
D8201 1SS126 PROT
D8202 1SS126 PROT
D8203 1SS126 PROT
D8204 1SS184 PROT
D8205 1SS184 PROT
D8206 1SS184 PROT
D8207 1SS126 PROT
D8208 1SS126 PROT
RY8201
RY8202
RY8203
RY8204
RY8205
RY8206
RY8207
HFMIFB (P1)
VFMIFB (P1)
HS-IFB
VS-IFB
HS2-OUT
VS2-OUT
ROUT-BA
GOUT-BA
BOUT-BA
ROUT-IFB
GOUT-IFB
BOUT-IFB
R-TOFIL
R-FMFIL
G-TOFIL
G-FMFIL
B-TOFIL
B-FMFIL
(P3)
FIL-ON/OFF (P2)
+13.5V
+9V
+6.2V
+5V
-5V
D-5.2V
no mark:Video
[ ]:R.G.B.HD.VD
QA(2/3)
(INPUT SW.REG)
B-SS1674<08>-QA-P2

- Refer to page 10-4 for Printed Wiring Board
- Refer to page 10-7 for Waveforms
- Refer to page 10-8 for IC Block Diagrams


5V
C8403 10 16V :AL-CP
Q8401 2SC3545-T43 BUFF
C8401 0.1 25V B:CHIP
+5V
(P2) R-TOFIL
-0.8
R8402 100k :CHIP
R8401 47 :CHIP
R
R8411 220 :RN-CP
-1.6
R8407 1k :CHIP
FL8401
R8419 100 :CHIP
R8422 2.2k :CHIP
0
-0.7
-5.2
Q8404 2SA1462-Y33 BUFF
R8416 220 :RN-CP
C8402 0.1 25V B:CHIP
C8404 10 16V :AL-CP
-5V
-5V
Q8402 2SC3545-T43 BUFF
(P2) G-TOFIL
-0.8
R8403 100k :CHIP
R8404 47 :CHIP
G
R8410 220 :RN-CP
-1.6
R8408 1k :CHIP
FL8402
R8420 100 :CHIP
R8423 2.2k :CHIP
0
-0.7
-5.2
Q8405 2SA1462-Y33 BUFF
R8417 220 :RN-CP
Q8403 2SC3545-T43 BUFF
(P2) B-TOFIL
-0.8
R8406 100k :CHIP
R8405 47 :CHIP
B
R8412 220 :RN-CP
-1.6
R8409 1k :CHIP
FL8403
R8421 100 :CHIP
R8424 2.2k :CHIP
0
-0.7
-5.2
Q8406 2SA1462-Y33 BUFF
R8418 220 :RN-CP
1 2 3 4 5 6 12 10 9 7
R8435 430 :RN-CP
5V
R8440 #
R8425 47 :CHIP
R
0
0
IC8401 OPA658U/2K5 BUFF
-5.2
0
C8415 10 16V :AL-CP
R8443 22k :CHIP
R
R-FMFIL (P2)
C8416 10 16V :AL-CP
C8409 0.1 25V B:CHIP
R8431 390 :RN-CP
C8412 0.1 25V B:CHIP
R8428 0 :CHIP
C8410 1p CK:CHIP
R8436 430 :RN-CP
+5V
R8441 #
R8426 47 :CHIP
G
C8406 0.1 25V B:CHIP
0
0
IC8402 OPA658U/2K5 BUFF
-5.2
-0.1
C8417 10 16V :AL-CP
R8444 22k :CHIP
G
G-FMFIL (P2)
R8432 390 :RN-CP
C8413 0.1 25V B:CHIP
C8408 1p CK:CHIP
R8429 0 :CHIP
R8434 430 :RN-CP
R8442 #
R8427 47 :CHIP
B
C8407 0.1 25V B:CHIP
0
0
IC8403 OPA658U/2K5 BUFF
-5.2
0
C8418 10 16V :AL-CP
R8445 22k :CHIP
B
B-FMFIL (P2)
C8405 10 16V :AL-CP
R8430 0 :CHIP
R8433 390 :RN-CP
C8414 0.1 25V B:CHIP
C8411 1p CK:CHIP
no mark:Video
QA (3/3) (LPF)

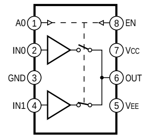
B-SS1674<08.>-QA-P3

QA Board Waveforms

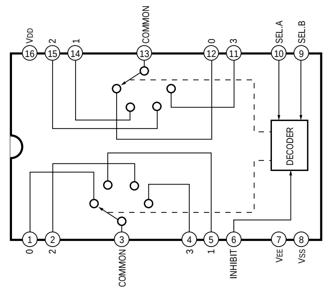
①  0.7Vp-p (H) TP8206 (R/R-Y)	②  0.7Vp-p (H) TP8402 (G/Y)	③  0.7Vp-p (H) TP8205 (B/B-Y)	④  4.6Vp-p (H) J8001 (SYNC/HD)
⑤  4.6Vp-p (H) J8001 (VD)	⑥  5.0Vp-p (H) TP8207 (HS3)	⑦  5.0Vp-p (H) TP8207 (HS2)	⑧  5.0Vp-p (H) TP8208 (VS2)
⑨  0.7Vp-p (H) TP8206 (R/R-Y)	⑩  0.7Vp-p (V) TP8204 (G/Y)	⑪  0.7Vp-p (H) TP8205 (B/B-Y)	

QA Board IC Block Diagrams

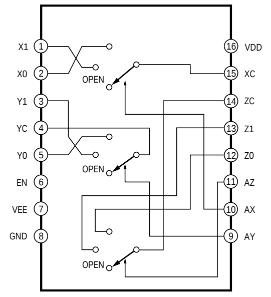
MAX4121CSA-TE2 (IC8206 – 8211)


A0
IN0
GND
IN1
EN
VCC
OUT
VEE

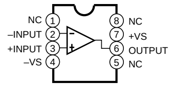
MC74HC4052AF-T2 (IC8002)


VDD
COMMON
SEL.A
SEL.B
DECODER
COMMON
INHIBIT
VEE
VSS

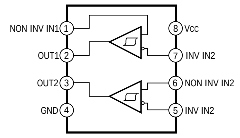
MC74HC4053F-T2 (IC8001)


X1
X0
Y1
YC
Y0
EN
VEE
GND
VDD
XC
ZC
Z1
Z0
AZ
AX
AY
OPEN
OPEN
OPEN

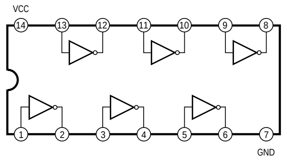
OPA658U-T2 (IC8012 – 8017, 8401 – 8403)


NC
–INPUT
+INPUT
–VS
NC
+VS
OUTPUT
NC

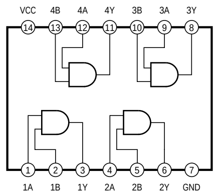
SN75157 (IC8009)


NON INV IN1
OUT1
OUT2
GND
Vcc
INV IN2
NON INV IN2
INV IN2

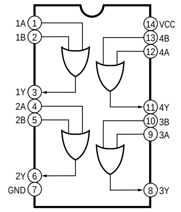
TC74HC04AF1 (IC8204)



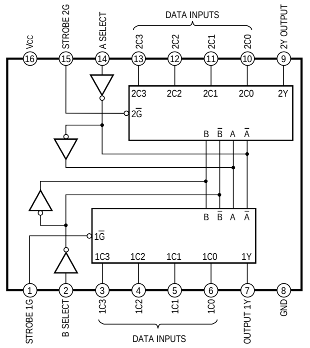
TC74HC08AF (IC8203)

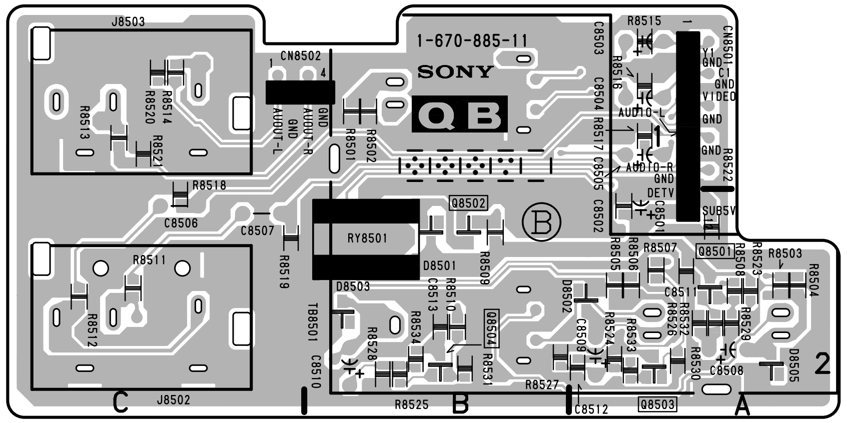

VCC
4B
4A
4Y
3B
3A
3Y
1A
1B
1Y
2A
2B
2Y
GND

TC74HC32AF (IC8202)


1A
1B
1Y
2A
2B
2Y
GND
VCC
4B
4A
4Y
3B
3A
3Y

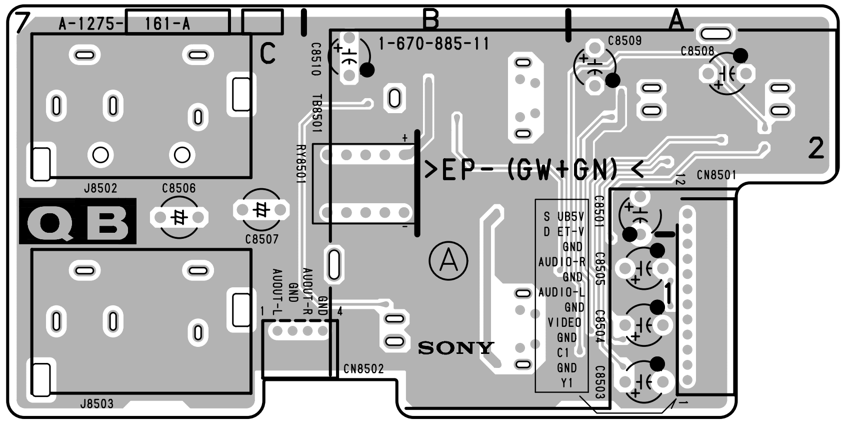
TC 74VHC153F (IC8010)


VCC
STROBE 2G
A SELECT
DATA INPUTS
2C3
2C2
2C1
2C0
2Y OUTPUT
STROBE 1G
B SELECT
1C3
1C2
1C1
1C0
OUTPUT 1Y
GND
DATA INPUTS


1-670-885-11
SONY
QB
J8503
J8502
CN8502
CN8501
RY8501
TB8501
A
B
C
2

QB – B SIDE –

SUFFIX ; -11


A-1275-161-A
1-670-885-11
>EP– (GW+GN)<
QB
SONY
J8502
J8503
CN8501
CN8502
A
B
C
7
2

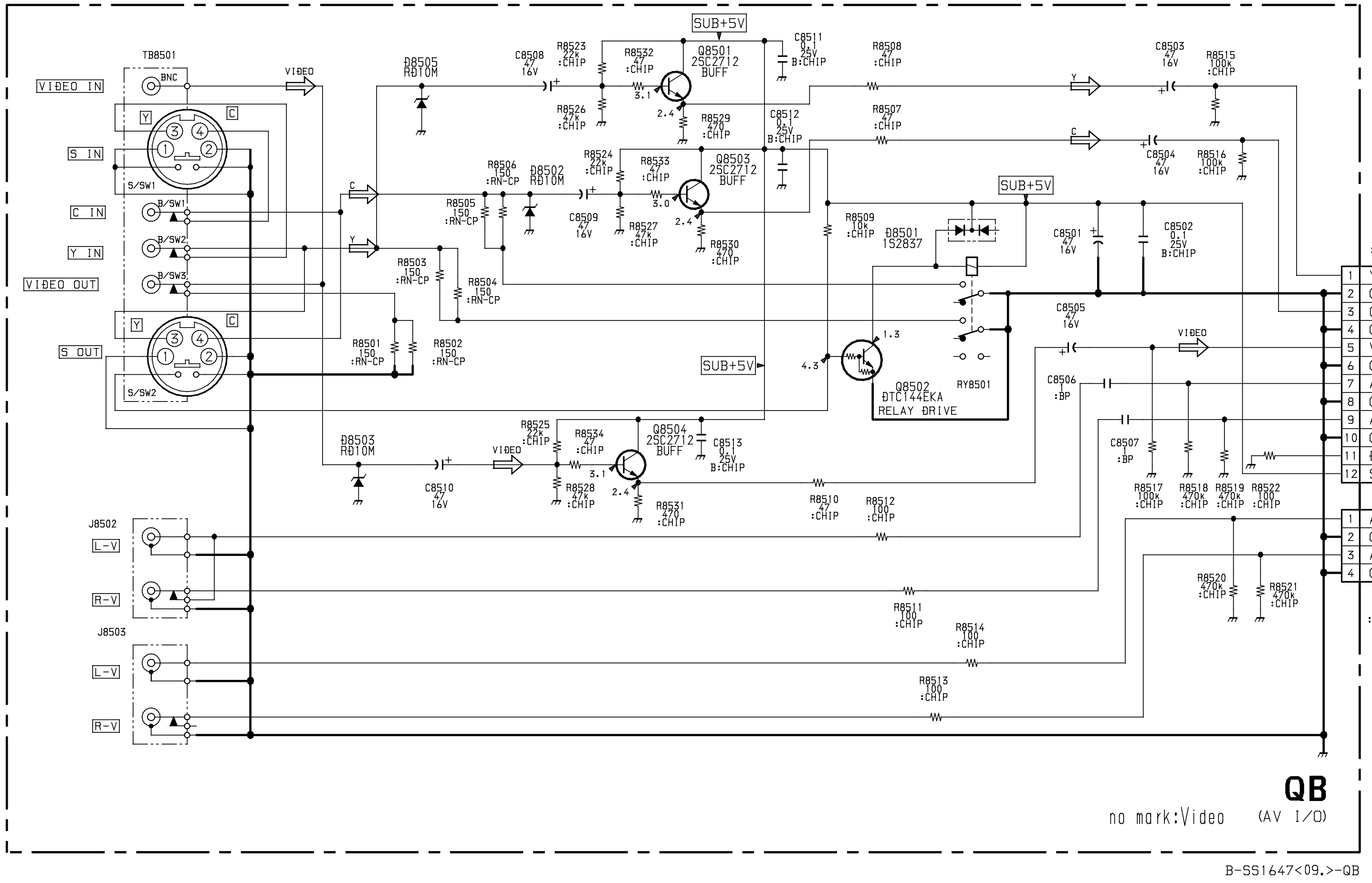
QB – A SIDE –

SUFFIX ; -11

QB(IFB-X2000E)

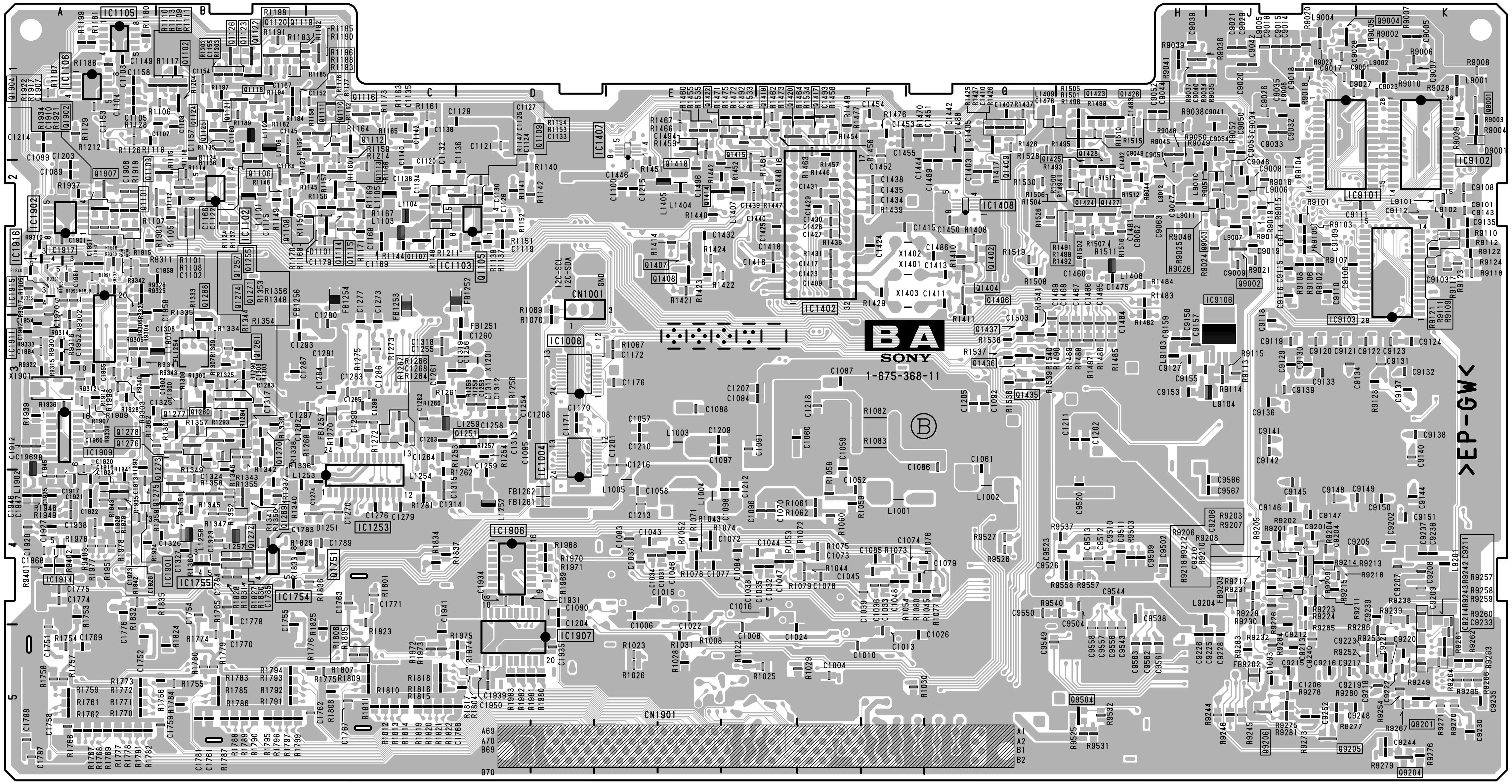
QB(IFB-X2000E)

- Refer to page 10-8 for Printed Wiring Board


VIDEO IN
S IN
C IN
Y IN
VIDEO OUT
S OUT
TB8501
BNC
S/SW1
S/SW2
B/SW1
B/SW2
B/SW3
SUB+5V
Q8501 2SC2712 BUFF
Q8503 2SC2712 BUFF
Q8504 2SC2712 BUFF
Q8502 DTC144EKA RELAY DRIVE
D8501 1S2837
D8502 RD10M
D8503 RD10M
D8505 RD10M
RY8501
J8502
J8503
L-V
R-V
CN8501 12P :S-MICRO
1 Y1
2 GND
3 C1
4 GND
5 VIDEO
6 GND
7 AUDIO-L
8 GND
9 AUDIO-R
10 GND
11 DET-V
12 SUB5V
TO XA BOARD CN505
CN8502 4P :S-MICRO
1 AUOUT-L
2 GND
3 AUOUT-R
4 GND
TO XA BOARD CN507
QB
(AV I/O)
no mark:Video
B-SS1647<09.>-QB

	VPL-X2000U/X2000M	VPL-X2000E
C8501	47 16V	#
C8503	47 16V	#
C8504	47 16V	#
C8505	47 16V	#
C8506	1 :BP	#
C8507	1 :BP	#
C8508	47 16V	#
C8509	47 16V	#
C8510	47 16V	#
C8511	0.1 25V B:CHIP	#
C8512	0.1 25V B:CHIP	#
C8513	0.1 25V B:CHIP	#
D8501	1S2837	#
D8502	RD10M	#
D8503	RD10M	#
D8505	RD10M	#
J8502		#
Q8501	2SC2712	#
Q8502	DTC144EKA	#
Q8503	2SC2712	#
Q8504	2SC2712	#
R8501	150 :RN-CP	#
R8502	150 :RN-CP	#
R8503	150 :RN-CP	#
R8504	150 :RN-CP	#
R8505	150 :RN-CP	#
R8506	150 :RN-CP	#
R8507	47 :CHIP	#
R8508	47 :CHIP	#
R8509	10k :CHIP	#
R8510	47 :CHIP	#
R8511	100 :CHIP	#
R8512	100 :CHIP	#
R8522	100 :CHIP	#
R8523	22k :CHIP	#
R8524	22k :CHIP	#
R8525	22k :CHIP	#
R8526	47k :CHIP	#
R8527	47k :CHIP	#
R8528	47k :CHIP	#
R8529	470 :CHIP	#
R8530	470 :CHIP	#
R8531	470 :CHIP	#
R8532	47 :CHIP	#
R8533	47 :CHIP	#
R8534	47 :CHIP	#
RY8501		#
TB8501		#

# : not use.


BA
SONY
1-675-368-11
EP-GW
CN1901
CN1001
IC1906
IC1907
IC1008
IC1004
IC1253
IC1402
IC1408
IC9101
IC9102
IC9103
IC9106

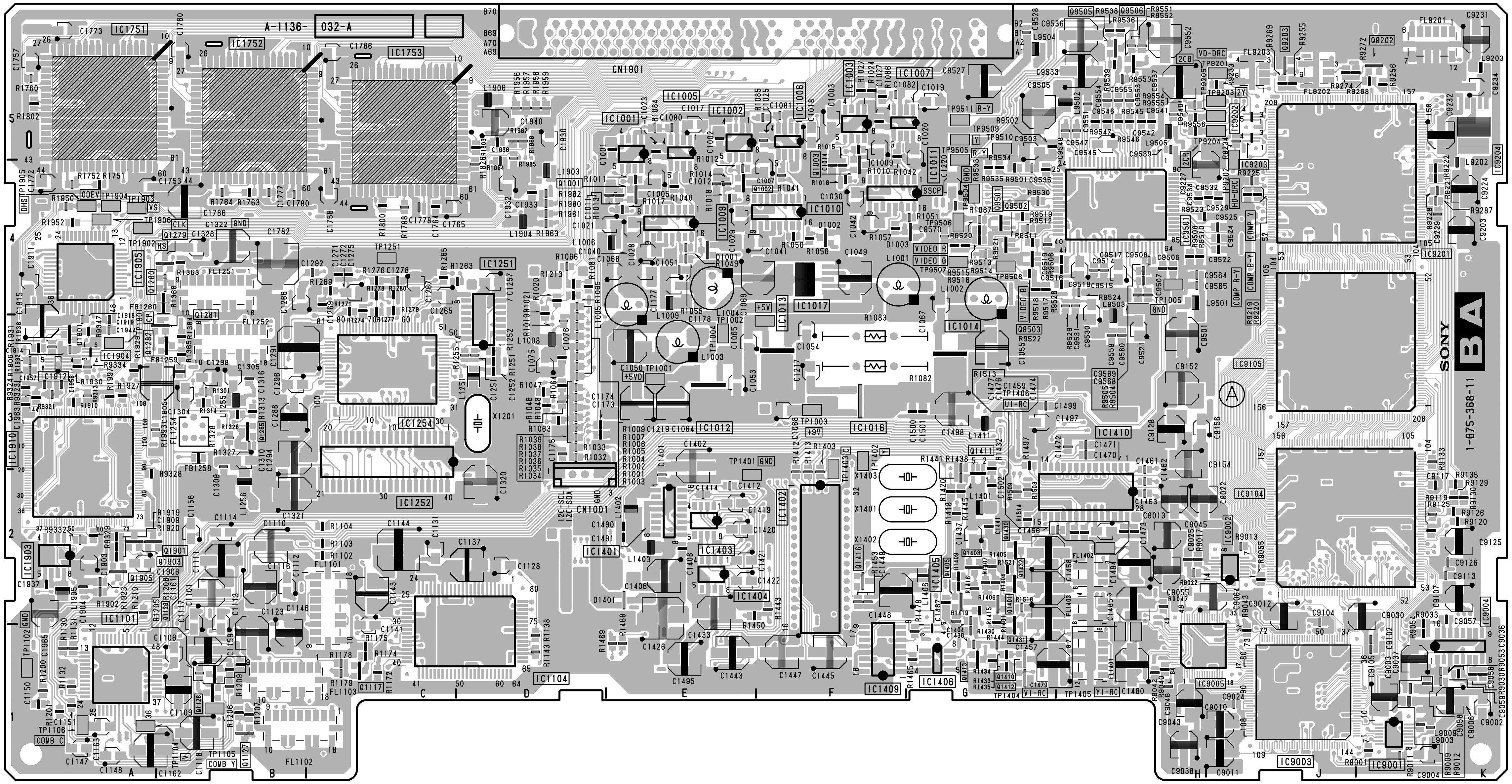
BA – B SIDE –

SUFFIX ; -11

BA

1-675-368-11

IC1004	D-3
IC1008	D-3
IC1102	B-2
IC1103	D-2
IC1105	A-1
IC1106	A-1
IC1253	C-4
IC1407	D-1
IC1408	G-2
IC1754	B-4
IC1755	B-4
IC1901	B-4
IC1902	A-2
IC1906	D-4
IC1907	D-5
IC1909	A-3
IC1911	A-3
IC1914	A-4
IC1915	A-2
IC1916	A-2
IC1917	A-2
IC9101	K-2
IC9102	K-1
IC9103	J-3
IC9106	J-2
Q1101	A-2
Q1102	B-1
Q1103	A-2
Q1105	D-2
Q1106	B-2
Q1107	C-2
Q1108	B-2
Q1110	C-1
Q1111	C-1
Q1112	C-1
Q1113	C-2
Q1114	C-2
Q1115	C-2
Q1116	C-1
Q1118	B-1
Q1119	B-1
Q1120	B-1
Q1121	B-1
Q1122	B-1
Q1123	B-1
Q1124	B-1
Q1125	B-1
Q1126	B-1
Q1251	D-3
Q1255	B-2
Q1257	B-2
Q1260	B-2
Q1261	B-3
Q1268	B-2
Q1269	B-3
Q1270	B-3
Q1271	B-2
Q1272	B-4
Q1273	A-3
Q1274	B-2
Q1275	A-5
Q1276	A-3
Q1277	B-3
Q1278	A-3
Q1280	B-3
Q1402	G-2
Q1404	G-2
Q1406	E-2
Q1407	E-2
Q1408	G-2
Q1409	G-2
Q1414	E-2
Q1415	E-1
Q1417	F-1
Q1418	E-1
Q1419	F-1
Q1420	F-1
Q1422	E-1
Q1423	H-1
Q1424	H-1
Q1425	H-1
Q1426	H-1
Q1427	H-1
Q1428	H-1
Q1435	G-3
Q1436	G-3
Q1437	G-3
Q1751	C-4
Q1902	A-1
Q1904	A-1
Q1907	A-2
Q9001	K-1
Q9002	J-2
Q9003	H-2
Q9004	K-1
Q9201	K-5
Q9204	K-5
Q9205	J-5
Q9206	J-5
Q9504	H-5



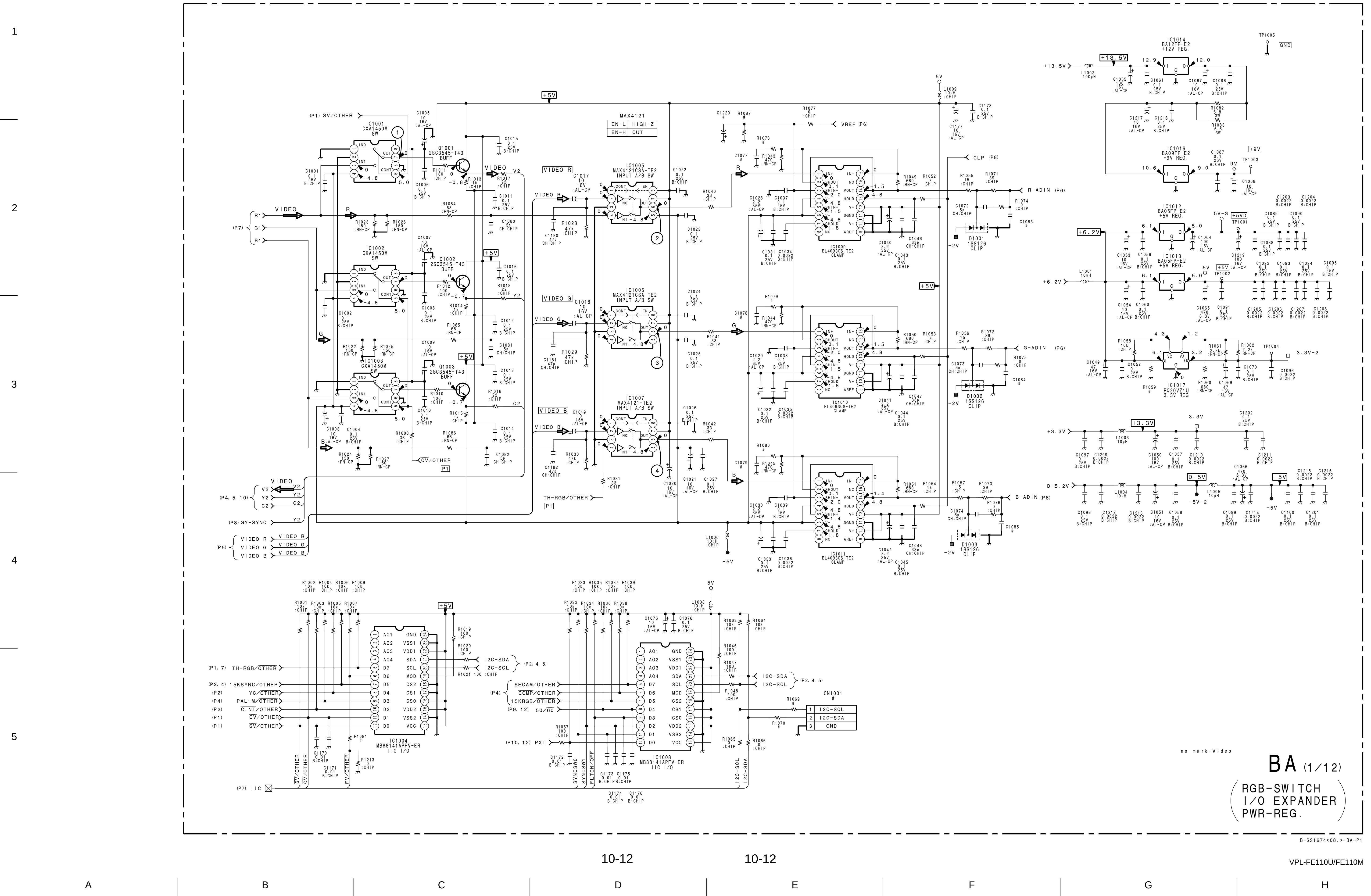
BA – A SIDE –

SUFFIX ; -11

–
BA
–
1-675-368-11

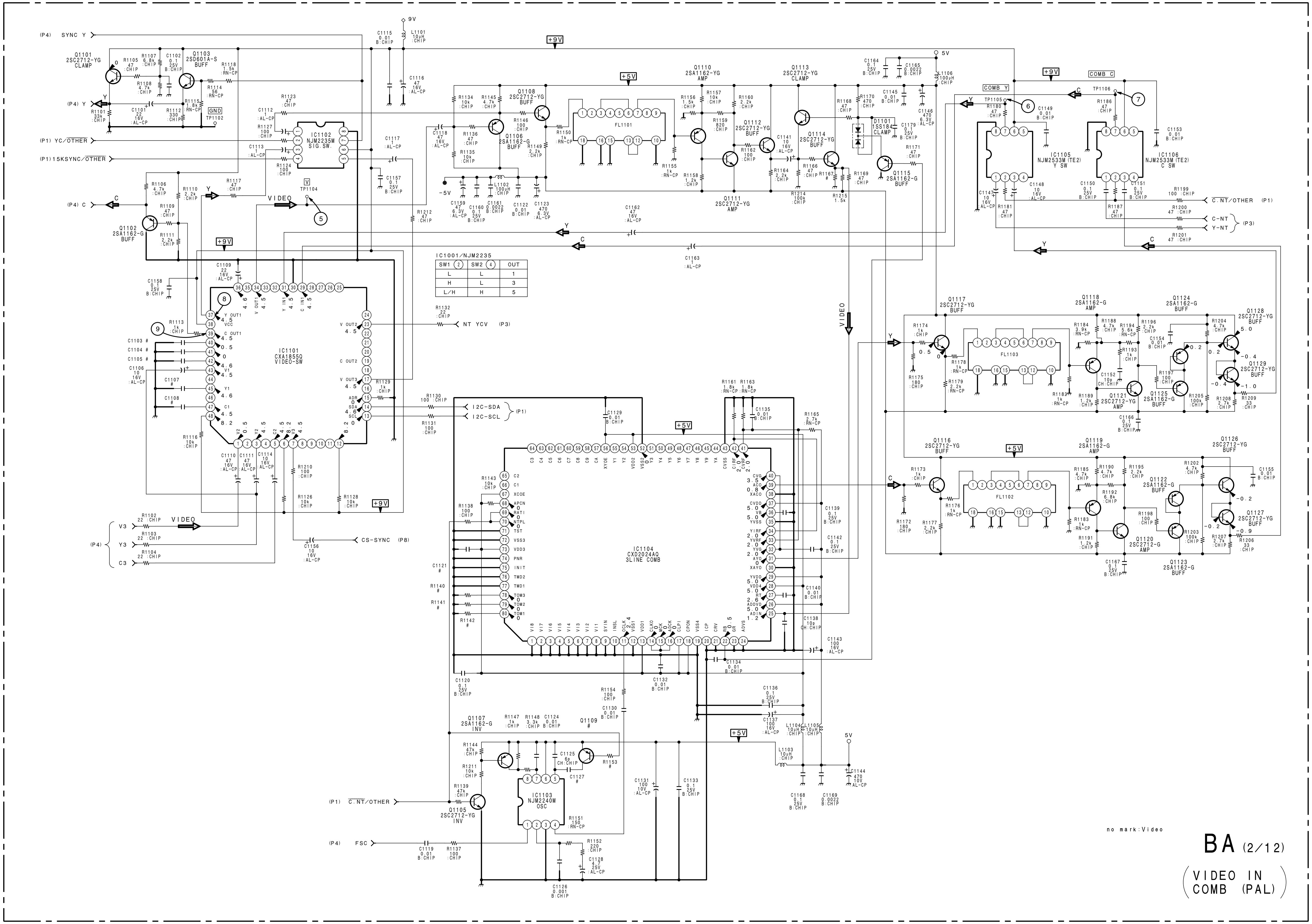
IC1001	E-5	IC1406	G-1	Q1001	D-4	Q1905	A-2	TP1903	A-4
IC1002	E-5	IC1409	F-1	Q1002	E-4	Q9202	K-5	TP1904	A-4
IC1003	F-5	IC1410	H-3	Q1003	E-5	Q9203	J-5	TP1905	A-4
IC1005	E-5	IC1751	A-5	Q1117	C-1	Q9501	G-4	TP1906	A-4
IC1006	F-5	IC1752	B-5	Q1127	B-1	Q9502	G-4	TP9201	J-5
IC1007	G-5	IC1753	C-5	Q1128	B-1	Q9503	G-3	TP9202	J-4
IC1009	E-4	IC1903	A-2	Q1129	B-2	Q9505	H-5	TP9203	J-5
IC1010	F-4	IC1904	A-3	Q1265	B-3	Q9506	H-5	TP9204	J-5
IC1011	G-5	IC1905	A-4	Q1279	B-4			TP9205	J-5
IC1012	E-3	IC1910	A-3	Q1281	B-4	TP1001	E-3	TP9504	G-4
IC1013	F-4	IC1912	A-3	Q1282	A-3	TP1002	E-3	TP9505	G-5
IC1014	G-3	IC9001	K-1	Q1401	G-2	TP1003	E-3	TP9506	G-4
IC1016	F-3	IC9002	J-2	Q1403	G-2	TP1004	E-3	TP9507	G-4
IC1017	F-4	IC9003	J-1	Q1405	G-2	TP1005	H-4	TP9508	G-4
IC1101	A-2	IC9004	K-2	Q1410	G-1	TP1102	A-1	TP9509	G-5
IC1104	D-1	IC9005	J-1	Q1411	G-3	TP1104	B-1	TP9510	G-5
IC1251	D-4	IC9104	J-2	Q1412	G-1	TP1105	B-1	TP9511	G-5
IC1252	C-2	IC9105	J-3	Q1413	G-1	TP1106	A-1		
IC1254	C-3	IC9201	K-4	Q1416	F-2	TP1251	C-4		
IC1401	E-2	IC9202	J-5	Q1430	G-2	TP1401	E-3		
IC1402	F-2	IC9203	J-5	Q1431	G-1	TP1402	F-3		
IC1403	E-2	IC9204	K-5	Q1432	G-2	TP1403	F-3		
IC1404	E-2	IC9501	H-4	Q1901	B-2	TP1901	A-3		
IC1405	G-2			Q1903	B-2	TP1902	A-4		

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams


1
2
3
4
5
A
B
C
D
E
F
G
H
IC1001 CXA1450M SW
IC1002 CXA1450M SW
IC1003 CXA1450M SW
Q1001 2SC3545-T43 BUFF
Q1002 2SC3545-T43 BUFF
Q1003 2SC3545-T43 BUFF
MAX4121
EN-L HIGH-Z
EN-H OUT
IC1005 MAX4121CSA-TE2 INPUT A/B SW
IC1006 MAX4121CSA-TE2 INPUT A/B SW
IC1007 MAX4121-TE2 INPUT A/B SW
IC1009 EL4093CS-TE2 CLAMP
IC1010 EL4093CS-TE2 CLAMP
IC1011 EL4093CS-TE2 CLAMP
D1001 1SS126 CLIP
D1002 1SS126 CLIP
D1003 1SS126 CLIP
IC1014 BA12FP-E2 +12V REG.
IC1016 BA09FP-E2 +9V REG.
IC1012 BA05FP-E2 +5V REG.
IC1013 BA05FP-E2 +5V REG.
IC1017 PQ20VZ1U 3.3V REG
IC1004 MB88141APFV-ER IIC I/O
IC1008 MB88141APFV-ER IIC I/O
CN1001
I2C-SCL
I2C-SDA
GND
VIDEO R
VIDEO G
VIDEO B
R-ADIN (P6)
G-ADIN (P6)
B-ADIN (P6)
VREF (P6)
CLP (P8)
(P7) R1 G1 B1
(P4.5.10) V2 Y2 C2
(P8) GY-SYNC
(P5) VIDEO R VIDEO G VIDEO B
(P7) IIC
TH-RGB/OTHER
CV/OTHER
+13.5V
+6.2V
+3.3V
D-5.2V
+5V
+9V
-5V
TP1001
TP1002
TP1003
TP1004
TP1005
no mark:Video
BA (1/12)
RGB-SWITCH
I/O EXPANDER
PWR-REG.

http://getMANUAL.com

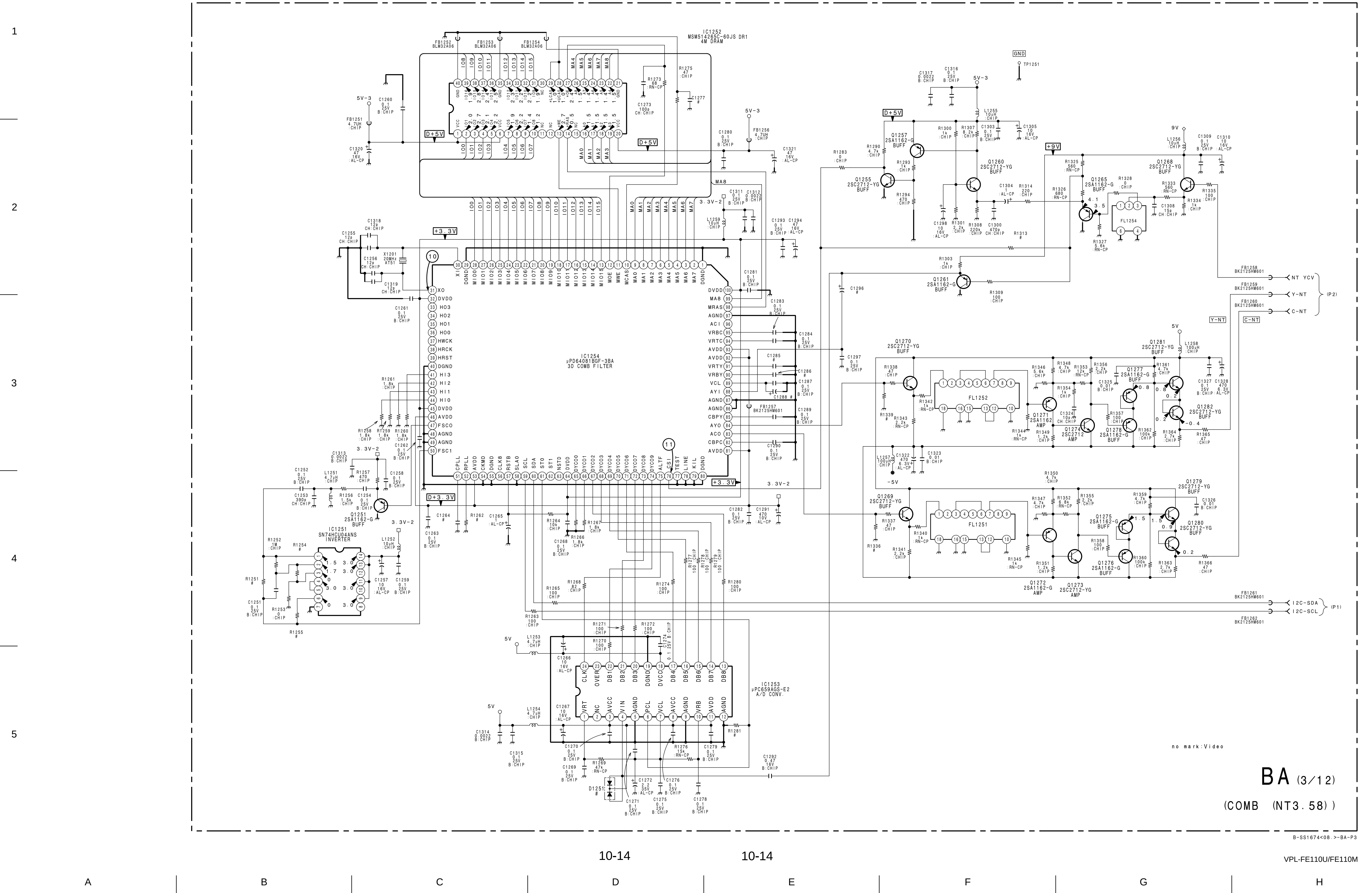
- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams


(P4) SYNC Y
Q1101 2SC2712-YG CLAMP
Q1103 2SD601A-S BUFF
(P4) Y
(P1) YC/OTHER
(P1) 15KSYNC/OTHER
(P4) C
Q1102 2SA1162-G BUFF
IC1102 NJM2235M SIG. SW.
TP1104
VIDEO
9V
+9V
+5V
5V
-5V
Q1108 2SC2712-YG BUFF
Q1106 2SA1162-G BUFF
FL1101
Q1110 2SA1162-G AMP
Q1112 2SC2712-YG BUFF
Q1111 2SC2712-YG AMP
Q1113 2SC2712-YG CLAMP
Q1114 2SC2712-YG BUFF
Q1115 2SA1162-G BUFF
D1101 1SS184 CLAMP
COMB Y
COMB C
TP1105
TP1106
IC1105 NJM2533M (TE2) Y SW
IC1106 NJM2533M (TE2) C SW
C-NT/OTHER (P1)
C-NT
Y-NT
(P3)
IC1001/NJM2235
IC1101 CXA1855Q VIDEO-SW
NT YCV (P3)
I2C-SDA
I2C-SCL
(P1)
VIDEO
Q1117 2SC2712-YG BUFF
Q1118 2SA1162-G AMP
Q1124 2SA1162-G BUFF
Q1128 2SC2712-YG BUFF
Q1129 2SC2712-YG BUFF
FL1103
Q1121 2SC2712-YG AMP
Q1125 2SA1162-G BUFF
IC1104 CXD2024AQ 3LINE COMB
Q1116 2SC2712-YG BUFF
Q1119 2SA1162-G AMP
Q1126 2SC2712-YG BUFF
FL1102
Q1122 2SA1162-G BUFF
Q1127 2SC2712-YG BUFF
Q1120 2SC2712-YG AMP
Q1123 2SA1162-G BUFF
(P4) V3 Y3 C3
CS-SYNC (P8)
Q1107 2SA1162-G INV
Q1109
Q1105 2SC2712-YG INV
IC1103 NJM2240M OSC
(P1) C.NT/OTHER
(P4) FSC
L1103
L1104
L1105
no mark:Video
BA (2/12)
VIDEO IN COMB (PAL)
B-SS1674<08.>-BA-P2
1
2
3
4
5
A
B
C
D
E
F
G
H

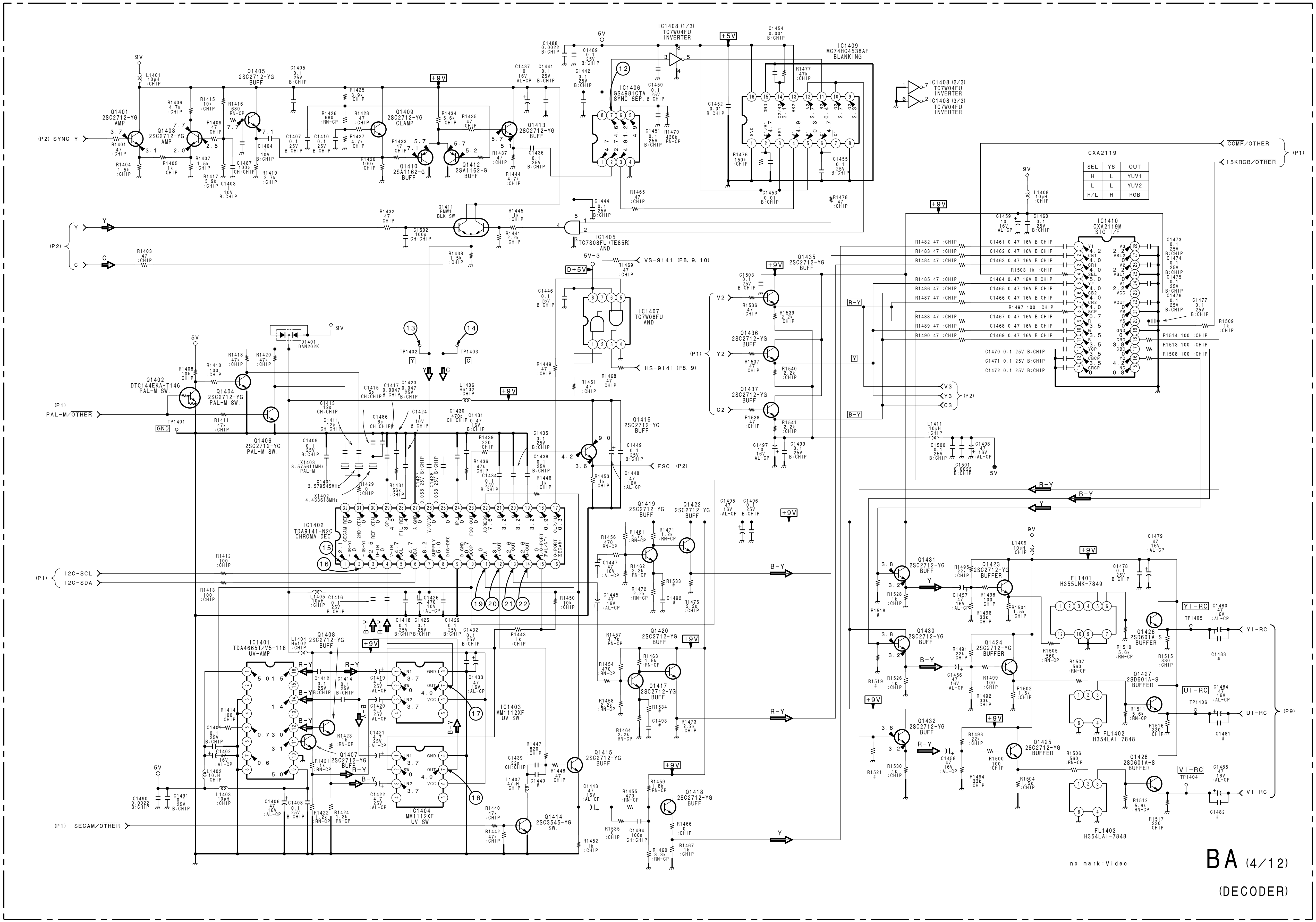
IC1001/NJM2235

SW1 ②	SW2 ④	OUT
L	L	1
H	L	3
L/H	H	5

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams


1
2
3
4
5
A
B
C
D
E
F
G
H
IC1252
MSM514265C-60JS DR1
4M DRAM
IC1254
μPD64081BGF-3BA
3D COMB FILTER
IC1253
μPC659AGS-E2
A/D CONV.
IC1251
SN74HCU04ANS
INVERTER
X1201
20MHz
AT51
FL1251
FL1252
FL1254
Q1251 2SA1162-G BUFF
Q1255 2SC2712-YG BUFF
Q1257 2SA1162-G BUFF
Q1260 2SC2712-YG BUFF
Q1261 2SA1162-G BUFF
Q1265 2SA1162-G BUFF
Q1268 2SC2712-YG BUFF
Q1269 2SC2712-YG BUFF
Q1270 2SC2712-YG BUFF
Q1271 2SA1162 AMP
Q1272 2SA1162-G AMP
Q1273 2SC2712-YG AMP
Q1274 2SC2712 AMP
Q1275 2SA1162-G BUFF
Q1276 2SA1162-G BUFF
Q1277 2SA1162-G BUFF
Q1278 2SA1162-G BUFF
Q1279 2SC2712-YG BUFF
Q1280 2SC2712-YG BUFF
Q1281 2SC2712-YG BUFF
Q1282 2SC2712-YG BUFF
D+5V
+3.3V
D+3.3V
+9V
5V-3
3.3V-2
9V
5V
-5V
GND
TP1251
MA8
NT YCV
Y-NT
C-NT
(P2)
I2C-SDA
I2C-SCL
(P1)
FB1258 BK2125HM601
FB1259 BK2125HM601
FB1260 BK2125HM601
FB1261 BK2125HM601
FB1262 BK2125HM601
D1251 #
no mark:Video
BA (3/12)
(COMB (NT3.58))
B-SS1674<08.>-BA-P3

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams

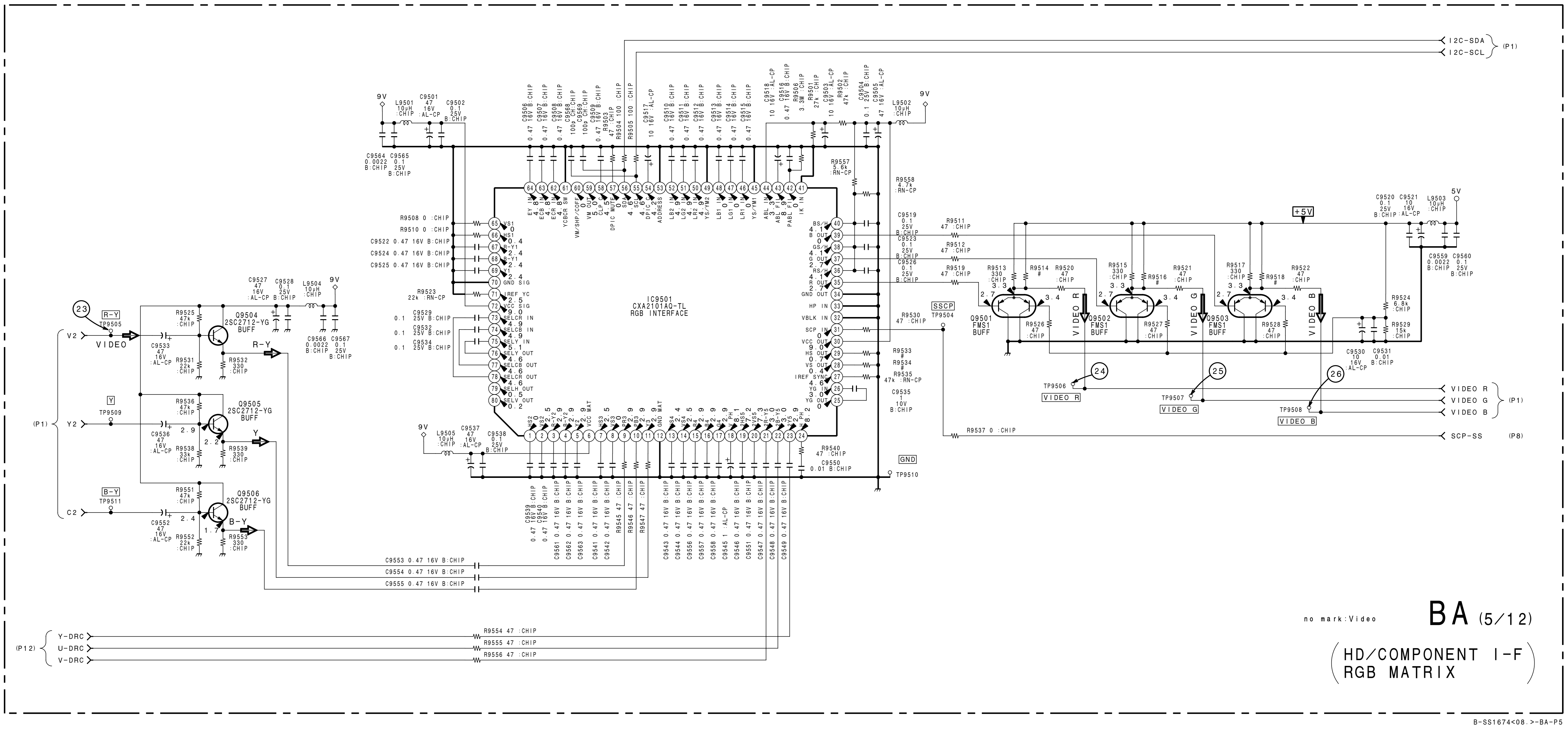

Q1401 2SC2712-YG AMP
Q1403 2SC2712-YG AMP
Q1405 2SC2712-YG BUFF
Q1409 2SC2712-YG CLAMP
Q1410 2SA1162-G BUFF
Q1412 2SA1162-G BUFF
Q1413 2SC2712-YG BUFF
Q1411 FMW1 BLK SW
IC1405 TC7S08FU (TE85R) AND
IC1406 GS4981CTA SYNC SEP.
IC1408 (1/3) TC7W04FU INVERTER
IC1408 (2/3) TC7W04FU INVERTER
IC1408 (3/3) TC7W04FU INVERTER
IC1409 MC74HC4538AF BLANKING
IC1407 TC7W08FU AND
(P2) SYNC Y
(P2) Y C
VS-9141 (P8. 9. 10)
HS-9141 (P8. 9)
D1401 DAN202K
Q1402 DTC144EKA-T146 PAL-M SW.
Q1404 2SC2712-YG PAL-M SW.
Q1406 2SC2712-YG PAL-M SW.
(P1) PAL-M/OTHER
TP1401 GND
TP1402 Y
TP1403 C
X1403 3.575611MHz PAL-M
X1401 3.579545MHz
X1402 4.433618MHz
IC1402 TDA9141-N2C CHROMA DEC
Q1416 2SC2712-YG BUFF
FSC (P2)
(P1) I2C-SCL I2C-SDA
IC1401 TDA4665T/V5-118 UV-AMP
Q1408 2SC2712-YG BUFF
Q1407 2SC2712-YG BUFF
IC1403 MM1112XF UV SW
IC1404 MM1112XF UV SW
(P1) SECAM/OTHER
Q1414 2SC3545-YG SW.
Q1415 2SC2712-YG BUFF
Q1419 2SC2712-YG BUFF
Q1422 2SC2712-YG BUFF
Q1420 2SC2712-YG BUFF
Q1417 2SC2712-YG BUFF
Q1418 2SC2712-YG BUFF
B-Y R-Y Y
Q1435 2SC2712-YG BUFF
Q1436 2SC2712-YG BUFF
Q1437 2SC2712-YG BUFF
(P1) V2 Y2 C2
V3 Y3 C3 (P2)
CXA2119
SEL | YS | OUT
H | L | YUV1
L | L | YUV2
H/L | H | RGB
IC1410 CXA2119M SIG I/F
COMP/OTHER
15KRGB/OTHER (P1)
Q1431 2SC2712-YG BUFF
Q1430 2SC2712-YG BUFF
Q1432 2SC2712-YG BUFF
Q1423 2SC2712-YG BUFFER
Q1424 2SC2712-YG BUFFER
Q1425 2SC2712-YG BUFFER
FL1401 H355LNK-7849
FL1402 H354LAI-7848
FL1403 H354LAI-7848
Q1426 2SD601A-S BUFFER
Q1427 2SD601A-S BUFFER
Q1428 2SD601A-S BUFFER
YI-RC UI-RC VI-RC (P9)
TP1405 TP1406 TP1404
no mark:Video
BA (4/12)
(DECODER)

B-SS1674<08.>-BA-P4

1 2 3 4 5

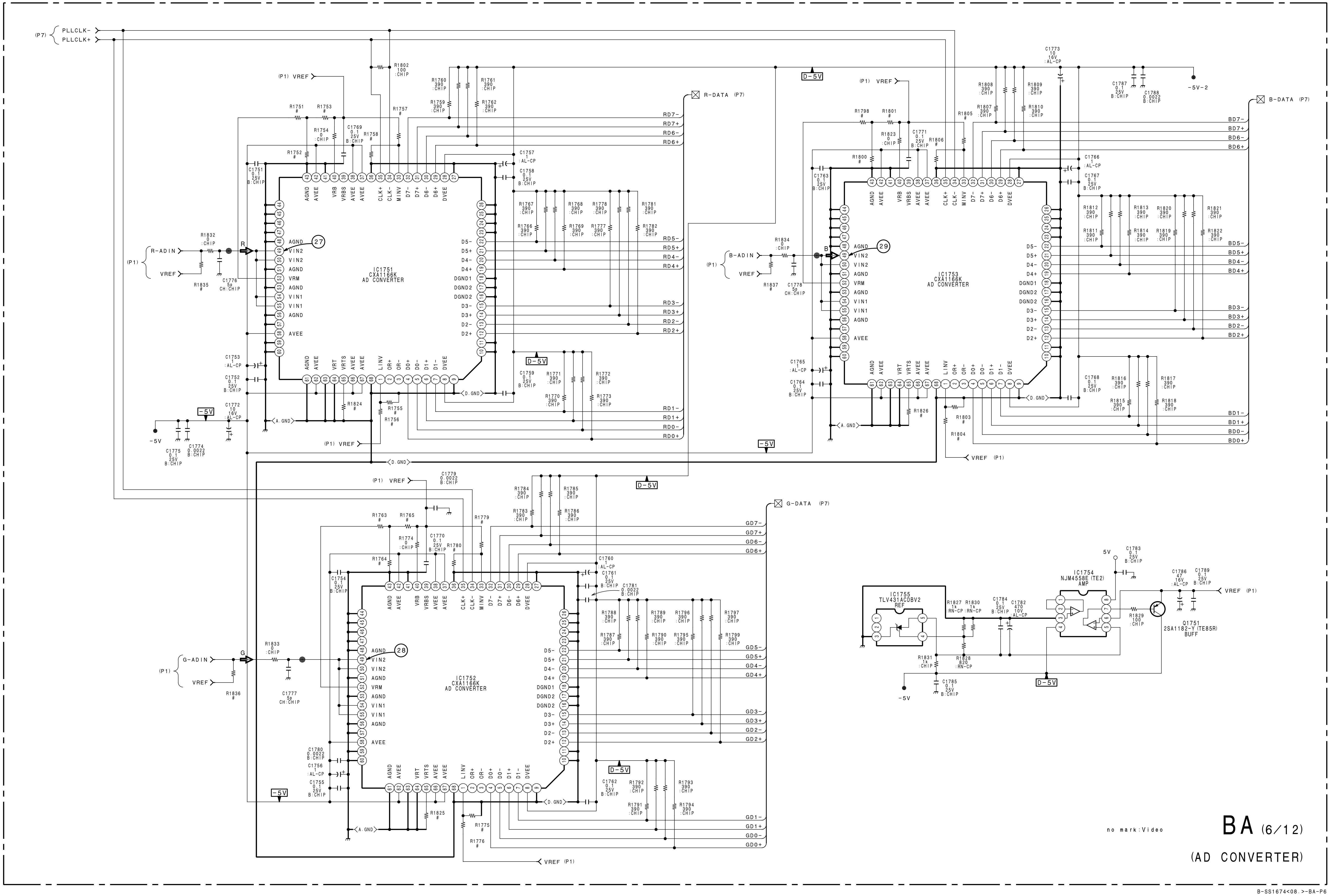
A B C D E F G H

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams

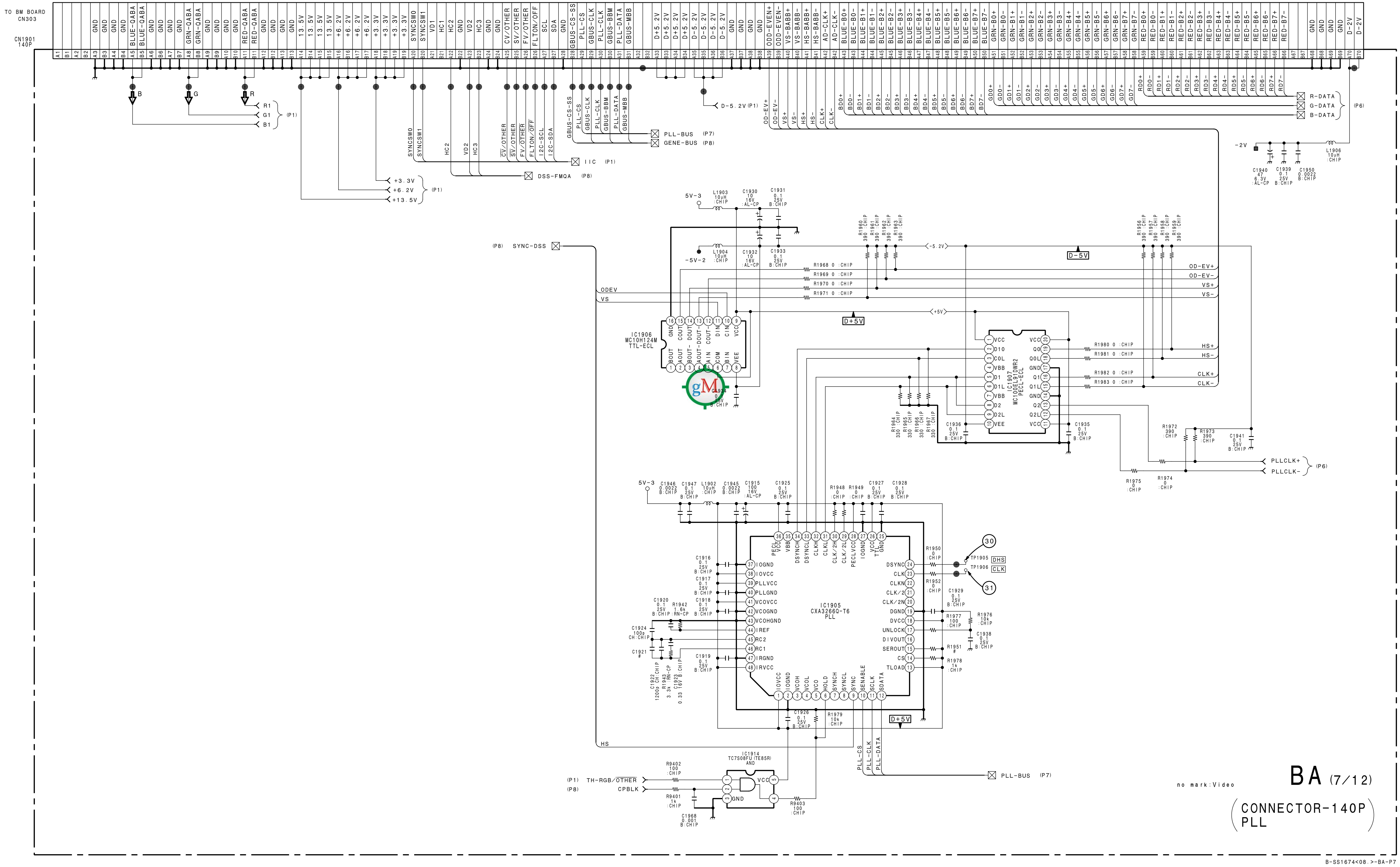


IC9501
CXA2101AQ-TL
RGB INTERFACE
Q9504
2SC2712-YG
BUFF
Q9505
2SC2712-YG
BUFF
Q9506
2SC2712-YG
BUFF
Q9501
FMS1
BUFF
Q9502
FMS1
BUFF
Q9503
FMS1
BUFF
VIDEO
R-Y
Y
B-Y
V2
Y2
C2
(P1)
(P12)
Y-DRC
U-DRC
V-DRC
I2C-SDA
I2C-SCL
VIDEO R
VIDEO G
VIDEO B
SCP-SS
(P8)
SSCP
GND
+5V
9V
5V
TP9504
TP9505
TP9506
TP9507
TP9508
TP9509
TP9510
TP9511
23
24
25
26
no mark:Video
BA (5/12)
HD/COMPONENT I-F
RGB MATRIX
B-SS1674<08.>-BA-P5

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams

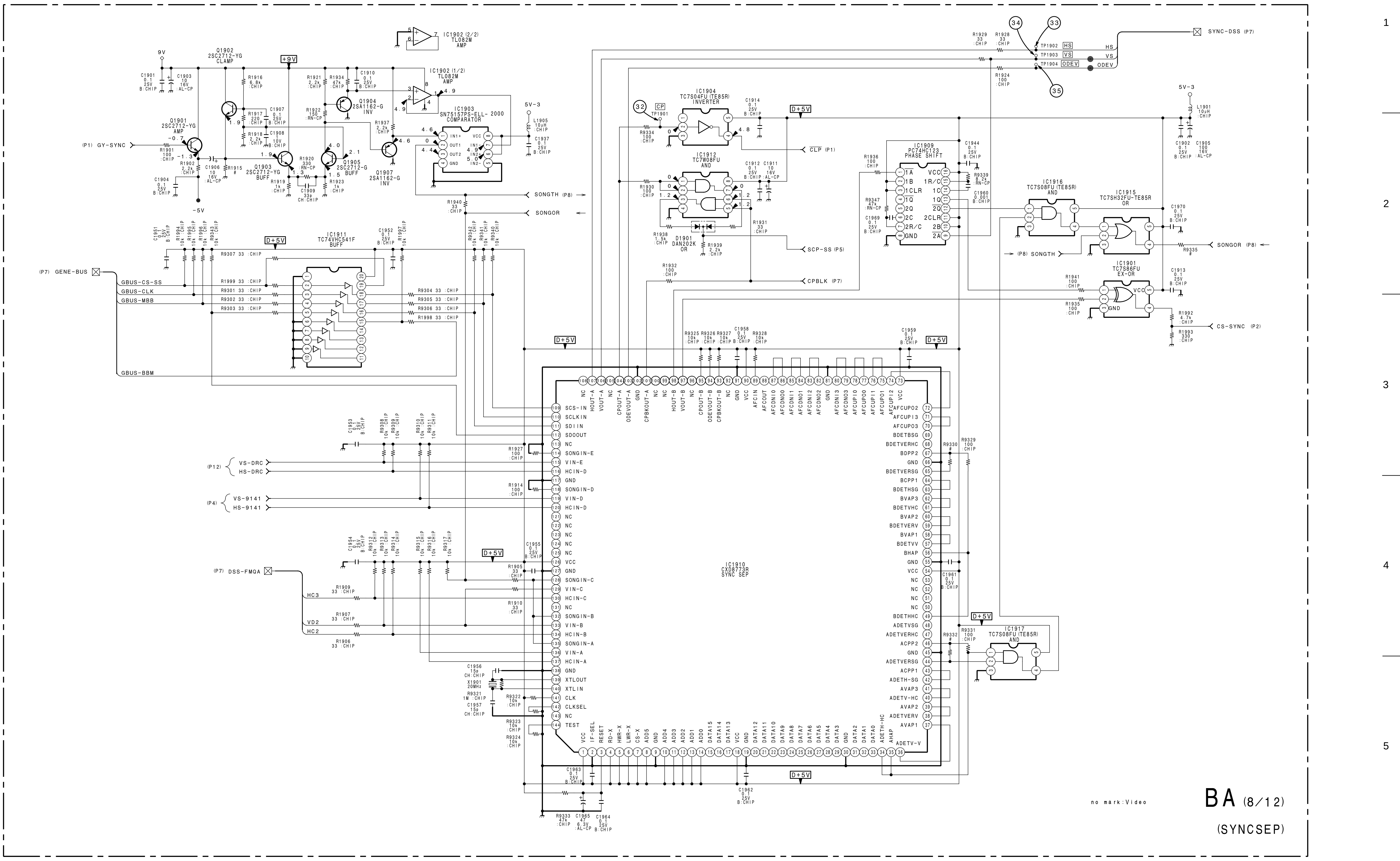

(P7) PLLCLK-
PLLCLK+
(P1) VREF
R-DATA (P7)
B-DATA (P7)
G-DATA (P7)
D-5V
-5V
-5V-2
(P1) R-ADIN
VREF
(P1) B-ADIN
(P1) G-ADIN
IC1751 CXA1166K AD CONVERTER
IC1752 CXA1166K AD CONVERTER
IC1753 CXA1166K AD CONVERTER
IC1754 NJM4558E (TE2) AMP
IC1755 TLV431ACDBV2 REF
Q1751 2SA1182-Y (TE85R) BUFF
5V
VREF (P1)
A.GND
D.GND
RD7- RD7+ RD6- RD6+ RD5- RD5+ RD4- RD4+ RD3- RD3+ RD2- RD2+ RD1- RD1+ RD0- RD0+
BD7- BD7+ BD6- BD6+ BD5- BD5+ BD4- BD4+ BD3- BD3+ BD2- BD2+ BD1- BD1+ BD0- BD0+
GD7- GD7+ GD6- GD6+ GD5- GD5+ GD4- GD4+ GD3- GD3+ GD2- GD2+ GD1- GD1+ GD0- GD0+
AGND AVEE VRB VRBS AVEE AVEE CLK+ CLK- MINV D7- D7+ D6- D6+ DVEE
AGND VIN2 VIN2 AGND VRM AGND VIN1 VIN1 AGND AVEE
D5- D5+ D4- D4+ DGND1 DGND2 DGND2 D3- D3+ D2- D2+
AGND AVEE VRT VRTS AVEE AVEE LINV OR+ OR- D0+ D0- D1+ D1- DVEE
27
28
29
R
G
B
no mark:Video
BA (6/12)
(AD CONVERTER)
B-SS1674<08.>-BA-P6
1 2 3 4 5
A B C D E F G H

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams



TO BM BOARD
CN303
CN1901
140P
R1
G1
B1
(P1)
SYNCSW0
SYNCSW1
HC2
VD2
HC3
CV/OTHER
SV/OTHER
FV/OTHER
FLTON/OFF
I2C-SCL
I2C-SDA
IIC (P1)
DSS-FMQA (P8)
+3.3V
+6.2V
+13.5V
GBUS-CS-SS
PLL-CS
GBUS-CLK
PLL-CLK
GBUS-BBM
PLL-DATA
GBUS-MBB
PLL-BUS (P7)
GENE-BUS (P8)
D-5.2V(P1)
R-DATA
G-DATA
B-DATA
(P6)
-2V
L1906 10μH :CHIP
C1940 47 6.3V :AL-CP
C1939 0.1 25V B:CHIP
C1950 0.0022 B:CHIP
5V-3
-5V-2
L1903 10μH :CHIP
L1904 10μH :CHIP
C1930 10 16V :AL-CP
C1931 0.1 25V B:CHIP
C1932 10 16V :AL-CP
C1933 0.1 25V B:CHIP
(P8) SYNC-DSS
ODEV
VS
R1968 0 :CHIP
R1969 0 :CHIP
R1970 0 :CHIP
R1971 0 :CHIP
D-5V
D+5V
OD-EV+
OD-EV-
VS+
VS-
IC1906
MC10H124M
TTL-ECL
IC1907
MC100EL91DWR2
PECL-ECL
R1980 0 :CHIP
R1981 0 :CHIP
R1982 0 :CHIP
R1983 0 :CHIP
HS+
HS-
CLK+
CLK-
C1936 0.1 25V B:CHIP
C1935 0.1 25V B:CHIP
R1972 390 :CHIP
R1973 390 :CHIP
C1941 0.1 25V B:CHIP
R1975 0 :CHIP
R1974 0 :CHIP
PLLCLK+
PLLCLK-
(P6)
IC1905
CXA3266Q-T6
PLL
TP1905 DHS
TP1906 CLK
30
31
R1950 0 :CHIP
R1952 0 :CHIP
C1929 0.1 25V B:CHIP
R1976 10k :CHIP
R1977 100 :CHIP
C1938 0.1 25V B:CHIP
R1951 #
R1978 1k :CHIP
R1979 10k :CHIP
C1926 0.1 25V B:CHIP
HS
IC1914
TC7S08FU(TE85R)
AND
R9402 100 :CHIP
R9401 1k :CHIP
R9403 100 :CHIP
C1968 0.001 B:CHIP
(P1) TH-RGB/OTHER
(P8) CPBLK
PLL-CS
PLL-CLK
PLL-DATA
PLL-BUS (P7)
no mark:Video
BA (7/12)
CONNECTOR-140P
PLL
B-SS1674<08.>-BA-P7

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams

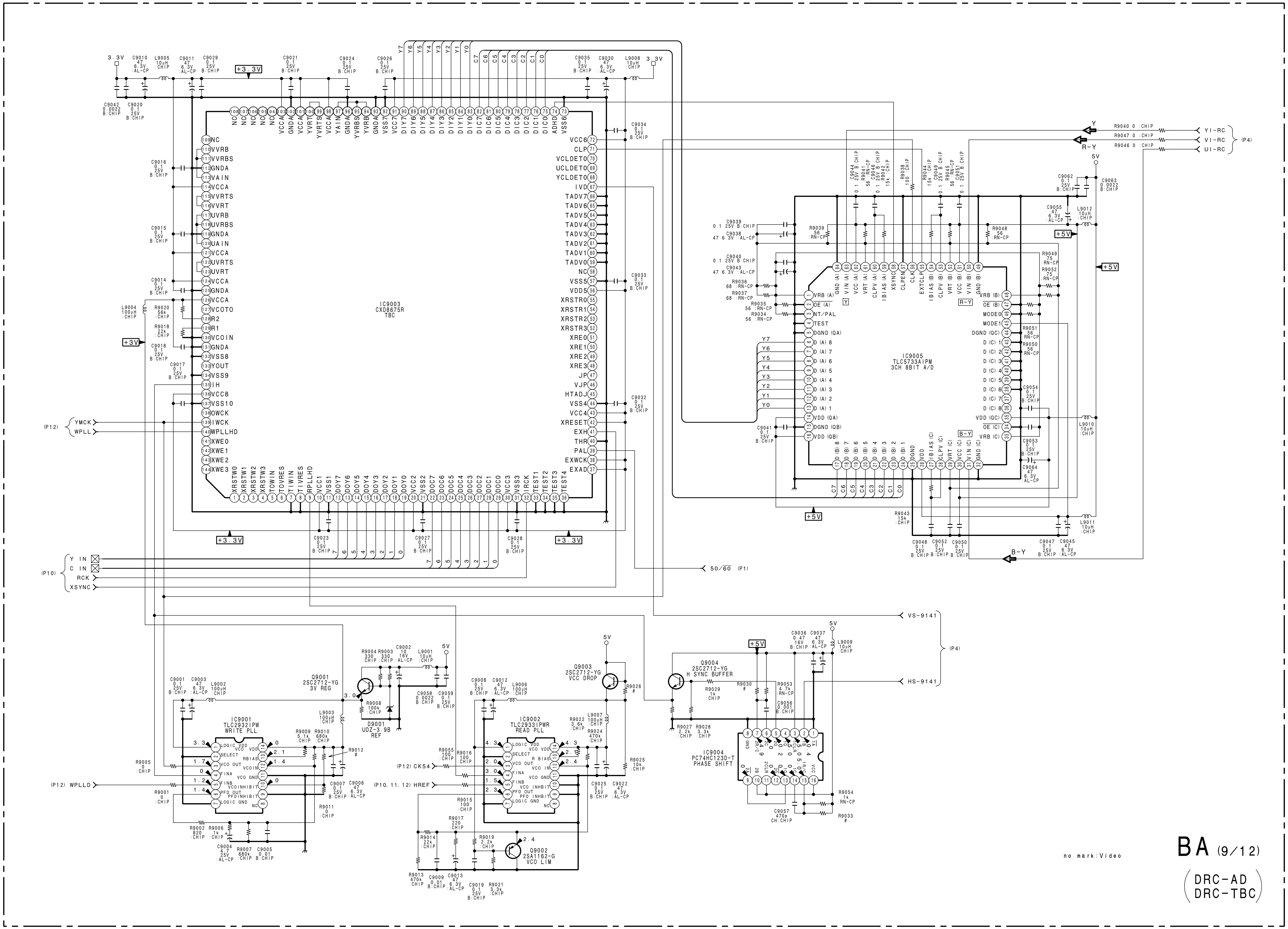


IC1902 (2/2) TL082M AMP
IC1902 (1/2) TL082M AMP
Q1902 2SC2712-YG CLAMP
Q1901 2SC2712-YG AMP
Q1903 2SC2712-YG BUFF
Q1904 2SA1162-G INV
Q1905 2SC2712-G BUFF
Q1907 2SA1162-G INV
IC1903 SN75157PS-ELL-2000 COMPARATOR
IC1904 TC7S04FU(TE85R) INVERTER
IC1912 TC7W08FU AND
D1901 DAN202K OR
IC1909 PC74HC123 PHASE SHIFT
IC1916 TC7S08FU(TE85R) AND
IC1915 TC7SH32FU-TE85R OR
IC1901 TC7S86FU EX-OR
IC1911 TC74VHC541F BUFF
IC1910 CXD8773R SYNC SEP
IC1917 TC7S08FU(TE85R) AND
(P1) GY-SYNC
(P7) GENE-BUS
GBUS-CS-SS
GBUS-CLK
GBUS-MBB
GBUS-BBM
SONGTH (P8)
SONGOR
CLP (P1)
SCP-SS (P5)
CPBLK (P7)
SYNC-DSS (P7)
HS
VS
ODEV
TP1902
TP1903
TP1904
TP1901 CP
SONGOR (P8)
(P8) SONGTH
CS-SYNC (P2)
(P12) VS-DRC HS-DRC
(P4) VS-9141 HS-9141
(P7) DSS-FMQA
HC3
VD2
HC2
X1901 20MHz
+9V
9V
-5V
5V-3
D+5V
L1905 10uH
L1901 10uH
SCS-IN
SCLKIN
SDIIN
SDOOUT
SONGIN-E
VIN-E
HCIN-D
SONGIN-D
VIN-D
SONGIN-C
VIN-C
HCIN-C
SONGIN-B
VIN-B
HCIN-B
SONGIN-A
VIN-A
HCIN-A
XTLOUT
XTLIN
CLK
CLKSEL
TEST
HOUT-A
VOUT-A
CPOUT-A
ODEVOUT-A
CPBKOUT-A
HOUT-B
VOUT-B
CPOUT-B
ODEVOUT-B
CPBKOUT-B
AFCOUT
AFCIN
AFCUP02
AFCUP13
AFCUP03
BDETBSG
BDETVERHC
BDPP2
BDETVERSG
BCPP1
BDETHSG
BVAP3
BDETVHC
BVAP2
BDETVERV
BVAP1
BDETVV
BHAP
BDETHHC
ADETVSG
ADETVERHC
ACPP2
ADETVERSG
ACPP1
ADETH-SG
AVAP3
ADETV-HC
AVAP2
ADETVERV
AVAP1
ADETV-V
AHAP
ADETH-HC
IF-SEL
RESET
RD-X
HWR-X
LWR-X
CS-X
no mark:Video
BA (8/12)
(SYNCSEP)
1 2 3 4 5

B-SS1674<08.>-BA-P8

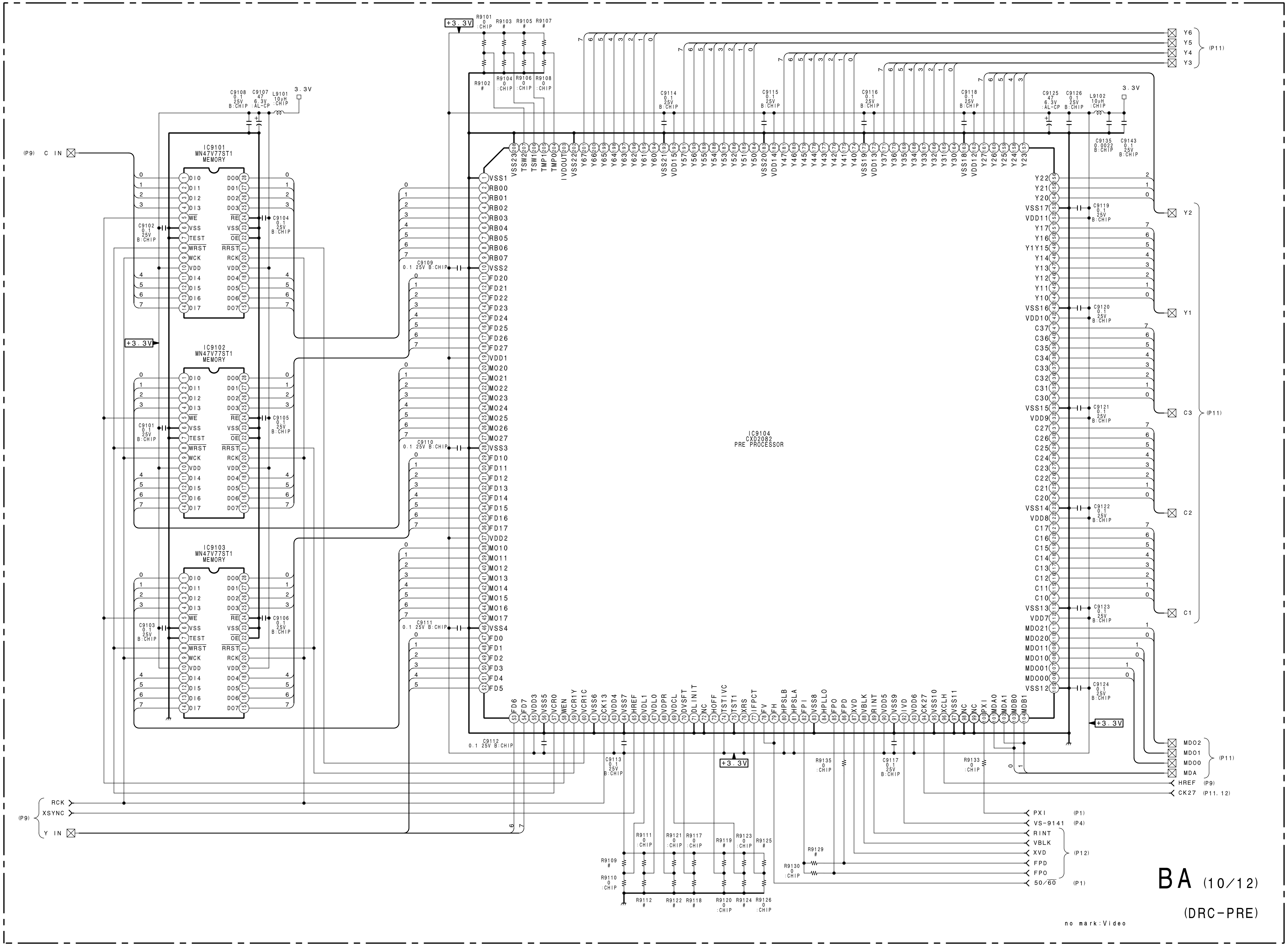
A B C D E F G H

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams


IC9003
CXD8675R
TBC
IC9005
TLC5733AIPM
3CH 8BIT A/D
IC9001
TLC2932IPW
WRITE PLL
IC9002
TLC2933IPWR
READ PLL
IC9004
PC74HC123D-T
PHASE SHIFT
Q9001
2SC2712-YG
3V REG
Q9002
2SA1162-G
VCO LIM
Q9003
2SC2712-YG
VCC DROP
Q9004
2SC2712-YG
H SYNC BUFFER
D9001
UDZ-3.9B
REF
(P12) YMCK
WPLL
(P10) Y IN
C IN
RCK
XSYNC
(P12) WPLLD
(P12) CK54
(P10, 11, 12) HREF
YI-RC
VI-RC
UI-RC
(P4)
50/60 (P1)
VS-9141
HS-9141
+3.3V
+3V
+5V
5V
no mark:Video
BA (9/12)
DRC-AD
DRC-TBC

B-SS1674<08 >-BA-P9

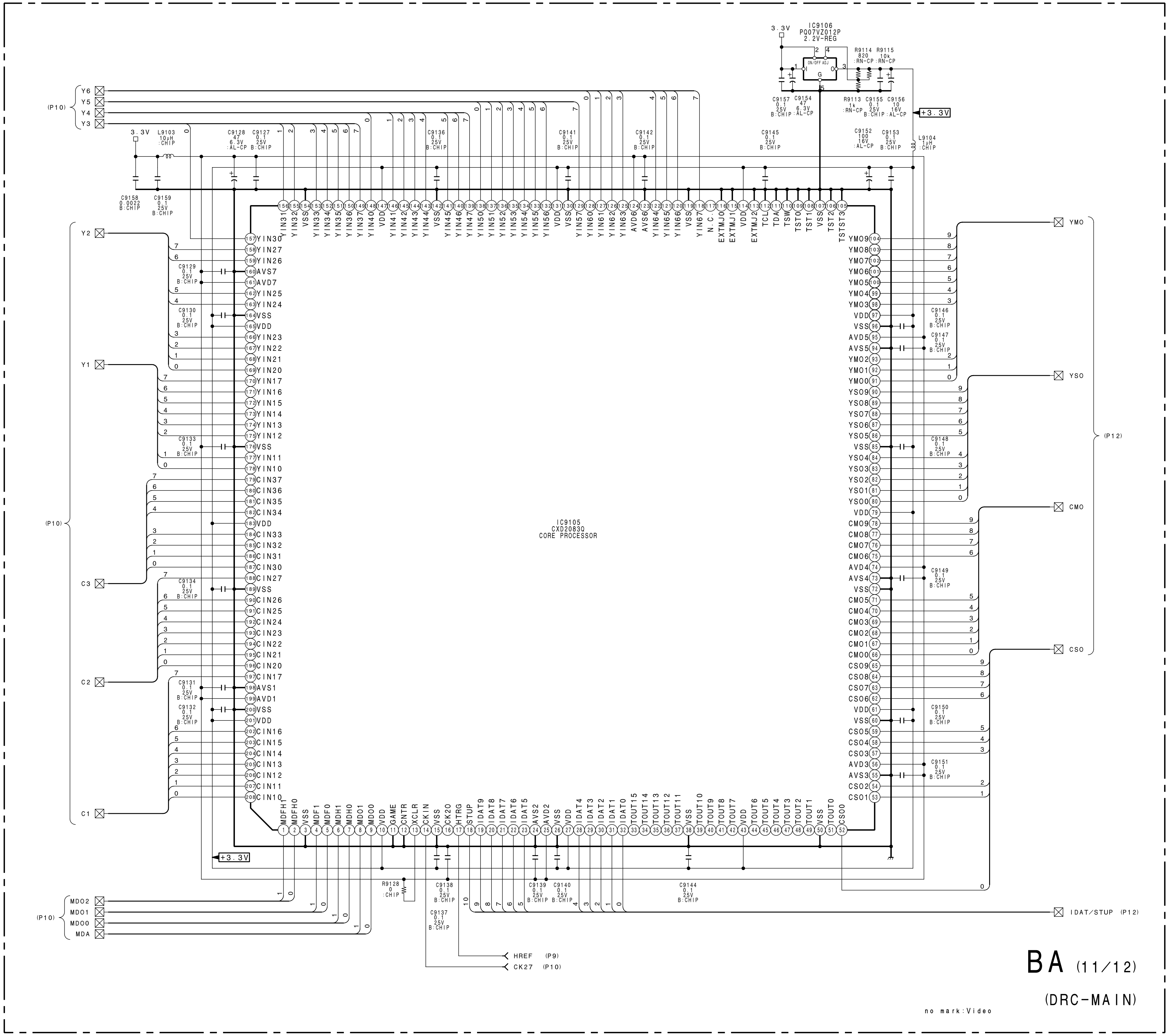
- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams


IC9101 MN47V77ST1 MEMORY
IC9102 MN47V77ST1 MEMORY
IC9103 MN47V77ST1 MEMORY
IC9104 CXD2082 PRE PROCESSOR
+3.3V
3.3V
(P9) C IN
(P9) RCK XSYNC Y IN
Y6 Y5 Y4 Y3 (P11)
Y2
Y1
C3 (P11)
C2
C1
MDO2 MDO1 MDO0 MDA (P11)
HREF (P9)
CK27 (P11, 12)
PXI (P1)
VS-9141 (P4)
RINT VBLK XVD FPD FPO (P12)
50/60 (P1)
BA (10/12)
(DRC-PRE)
no mark:Video

B-SS1674<08.>-BA-P10

BA (11/12)

- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams


IC9105
CXD2083Q
CORE PROCESSOR
IC9106
PQ07VZ012P
2.2V-REG
3.3V
+3.3V
L9103
L9104
Y6
Y5
Y4
Y3
Y2
Y1
C3
C2
C1
(P10)
YMO
YSO
CMO
CSO
(P12)
MDO2
MDO1
MDO0
MDA
IDAT/STUP (P12)
HREF (P9)
CK27 (P10)
R9128
R9113
R9114
R9115
C9158
C9159
C9128
C9127
C9136
C9141
C9142
C9145
C9152
C9153
C9157
C9154
C9155
C9156
C9129
C9130
C9133
C9134
C9131
C9132
C9146
C9147
C9148
C9149
C9150
C9151
C9138
C9137
C9139
C9140
C9144
BA (11/12)
(DRC-MAIN)
no mark:Video
B-SS1674<08.>-BA-P11

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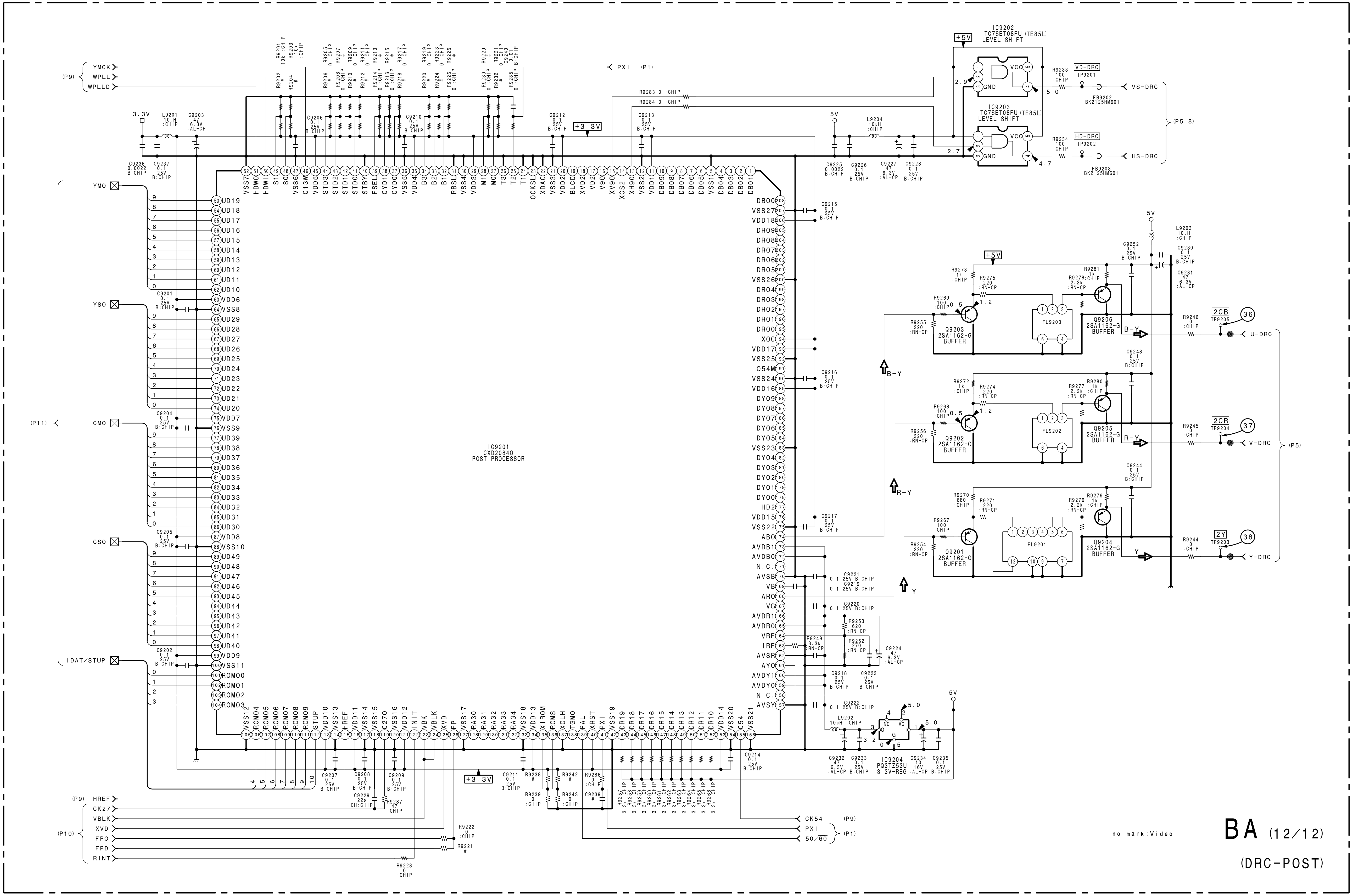
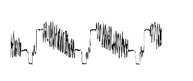
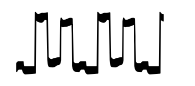
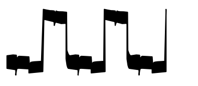
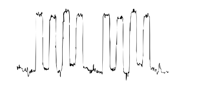
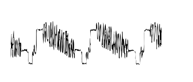
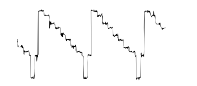
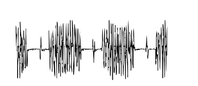
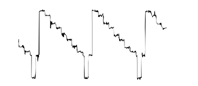
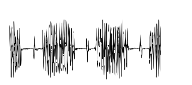
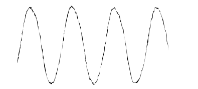
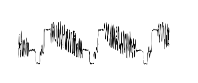
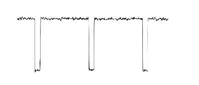
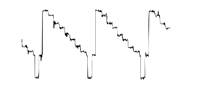
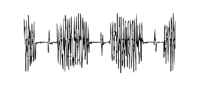
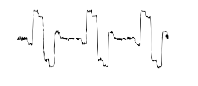
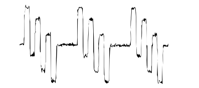
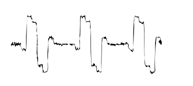
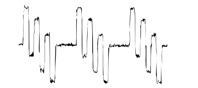
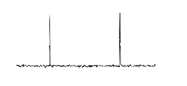
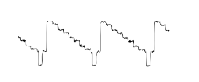
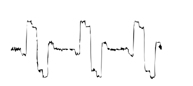
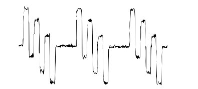
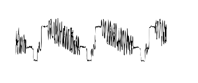
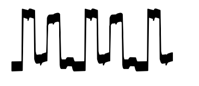
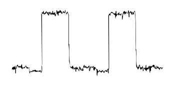
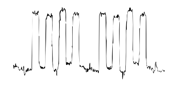
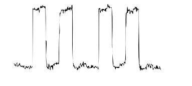
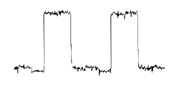
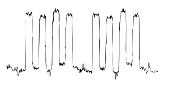
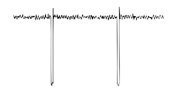
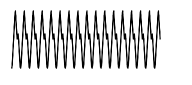
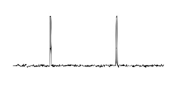
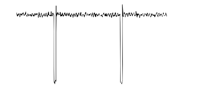
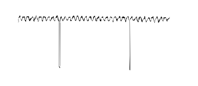
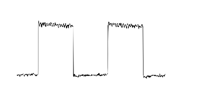
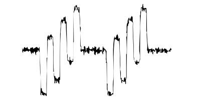
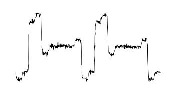
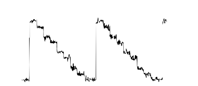
- Refer to page 10-10, 10-11 for Printed Wiring Board
- Refer to page 10-24 for Waveforms
- Refer to page 10-24, 10-25, 10-26 for IC Block Diagrams


IC9201
CXD2084Q
POST PROCESSOR
IC9202
TC7SET08FU (TE85L)
LEVEL SHIFT
IC9203
TC7SET08FU (TE85L)
LEVEL SHIFT
IC9204
PQ3TZ53U
3.3V-REG
Q9201 2SA1162-G BUFFER
Q9202 2SA1162-G BUFFER
Q9203 2SA1162-G BUFFER
Q9204 2SA1162-G BUFFER
Q9205 2SA1162-G BUFFER
Q9206 2SA1162-G BUFFER
FL9201
FL9202
FL9203
YMCK
WPLL
WPLLD
(P9)
YMO
YSO
CMO
CSO
IDAT/STUP
(P11)
HREF
CK27
VBLK
XVD
FPO
FPD
RINT
(P10)
PXI (P1)
VD-DRC
HD-DRC
VS-DRC
HS-DRC
(P5, 8)
2CB
2CR
2Y
U-DRC
V-DRC
Y-DRC
(P5)
B-Y
R-Y
Y
CK54
PXI
50/60
+5V
+3.3V
3.3V
5V
no mark:Video
BA (12/12)
(DRC-POST)

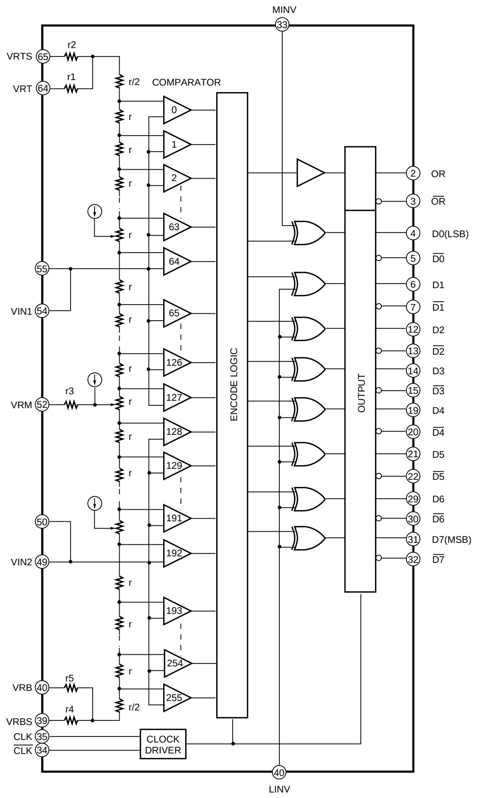
B-SS1674<08.>-BA-P12

BA Board Waveforms

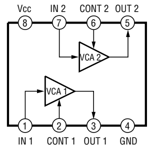
①  1Vp-p (H) IC1001 ⑦ R1 (V2)	②  0.6Vp-p (H) IC1005 ⑥ (VIDEO R)	③  0.6Vp-p (H) IC1006 ⑥ (VIDEO G)	④  0.6Vp-p (H) IC1007 ⑥ (VIDEO B)
⑤  1Vp-p (H) TP1104 V (VIDEO OUT1)	⑥  1.6Vp-p (H) TP1105 COMB Y	⑦  0.6Vp-p (H) TP1106 COMB C	⑧  1.6Vp-p (H) IC1101 ㊲ (Y OUT1)
⑨  0.6Vp-p (H) IC1101 ㊴ (C OUT1)	⑩  3.8Vp-p (V) IC1254 ㉛ (XO=20MHz)	⑪  1.8Vp-p (H) IC1254 (76) (CSI)	⑫  5Vp-p (H) IC1406 ⑦ (SYNC Y)
⑬  0.8Vp-p TP1402 Y	⑭  0.3Vp-p (H) TP1403 C	⑮  0.55Vp-p (H) IC1402 ① (R-Y)	⑯  0.7Vp-p (H) IC1402 ② (B-Y)
⑰  1.2Vp-p (H) IC1403 ⑦ (R-Y OUT)	⑱  1.5Vp-p (H) IC1404 ⑦ (B-Y)	⑲  4.6Vp-p (H) IC1402 ⑪ (VA)	⑳  1.3Vp-p (H) IC1402 ⑫ (Y OUT)
㉑  1.1Vp-p (H) IC1402 ⑬ (V OUT)	㉒  1.3Vp-p (H) IC1402 ⑭ (U OUT)	㉓  1Vp-p (H) TP9505 R-Y	㉔  0.6Vp-p (H) TP9506 VIDEO R
㉕  0.6Vp-p (H) TP9507 VIDEO G	㉖  0.6Vp-p (H) TP9508 VIDEO B	㉗  1.5Vp-p (H) IC1751 ㊾ (R-AD IN)	㉘  1.5Vp-p (H) IC1752 ㊾ (G-AD IN)
㉙  1.5Vp-p (H) IC1753 ㊾ (B-AD IN)	㉚  2.9Vp-p (H) TP1905 DHS	㉛  1.4Vp-p (H) TP1906 CLK	㉜  5.0Vp-p (H) TP1901 CP
㉝  5Vp-p (H) TP1902 HS	㉞  5Vp-p (H) TP1903 VS	㉟  5Vp-p (H) TP1904 ODE V	㊱  0.6Vp-p (H) TP9205 2CB
㊲  0.5Vp-p (H) TP9204 2CR	㊳  0.6Vp-p (H) TP9203 2Y		

BA Board IC Block Diagrams

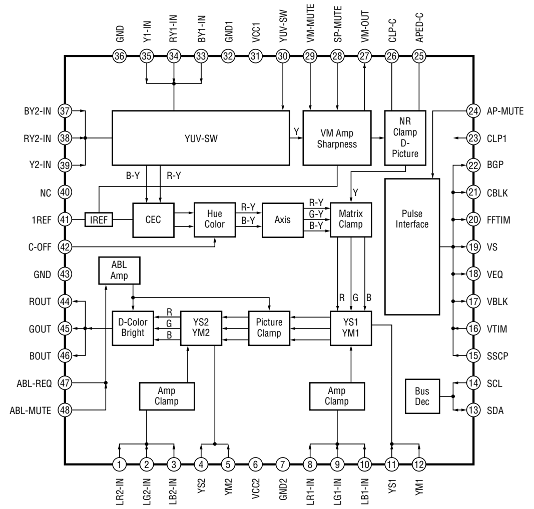
CXA1166K (IC1751 – 1753)


MINV
33
VRTS 65
r2
VRT 64
r1
r/2
COMPARATOR
r
0
1
2
63
64
55
VIN1 54
65
126
127
128
129
191
192
193
254
255
VRM 52
r3
50
VIN2 49
VRB 40
r5
VRBS 39
r4
CLK 35
CLK 34
CLOCK DRIVER
ENCODE LOGIC
OUTPUT
2 OR
3 OR
4 D0(LSB)
5 D0
6 D1
7 D1
12 D2
13 D2
14 D3
15 D3
19 D4
20 D4
21 D5
22 D5
29 D6
30 D6
31 D7(MSB)
32 D7
40
LINV

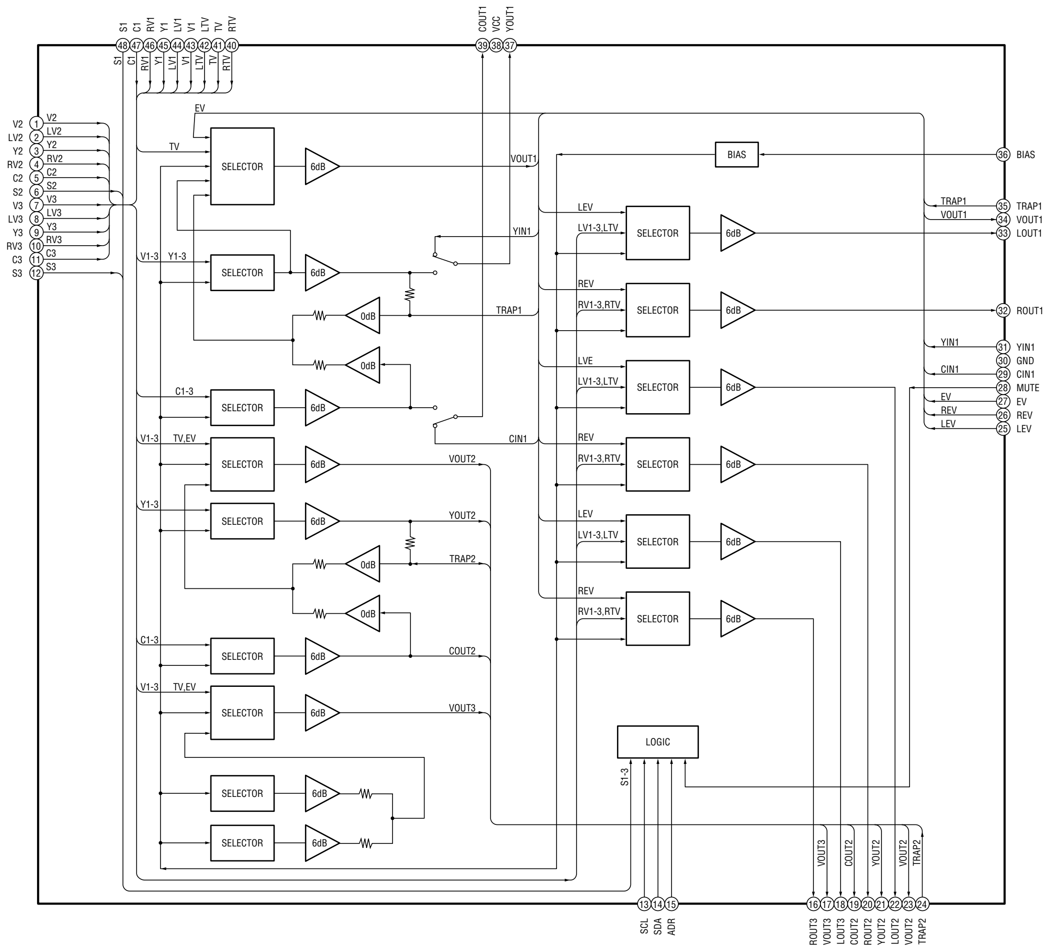
CXA1211M-T4 (IC9204)


Vcc
IN 2
CONT 2
OUT 2
8
7
6
5
VCA 2
VCA 1
1
2
3
4
IN 1
CONT 1
OUT 1
GND

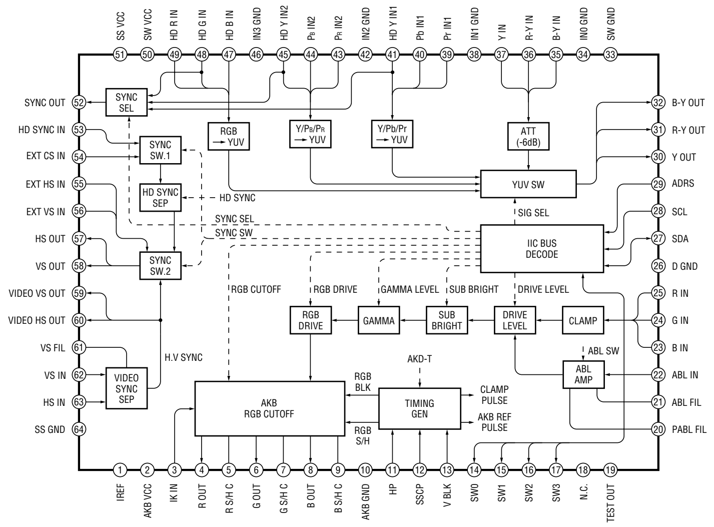
CXA1839Q-T6 (IC1602)


GND 36
Y1-IN 35
RY1-IN 34
BY1-IN 33
GND1 32
VCC1 31
YUV-SW 30
VM-MUTE 29
SP-MUTE 28
VM-OUT 27
CLP-C 26
APED-C 25
BY2-IN 37
RY2-IN 38
Y2-IN 39
NC 40
1REF 41
C-OFF 42
GND 43
ROUT 44
GOUT 45
BOUT 46
ABL-REQ 47
ABL-MUTE 48
YUV-SW
Y
VM Amp Sharpness
NR Clamp D-Picture
B-Y
R-Y
IREF
CEC
Hue Color
R-Y
B-Y
Axis
R-Y
G-Y
B-Y
Y
Matrix Clamp
Pulse Interface
ABL Amp
R
G
B
D-Color Bright
R
G
B
YS2 YM2
Picture Clamp
YS1 YM1
Amp Clamp
Amp Clamp
Bus Dec
24 AP-MUTE
23 CLP1
22 BGP
21 CBLK
20 FFTIM
19 VS
18 VEQ
17 VBLK
16 VTIM
15 SSCP
14 SCL
13 SDA
1 LR2-IN
2 LG2-IN
3 LB2-IN
4 YS2
5 YM2
6 VCC2
7 GND2
8 LR1-IN
9 LG1-IN
10 LB1-IN
11 YS1
12 YM1

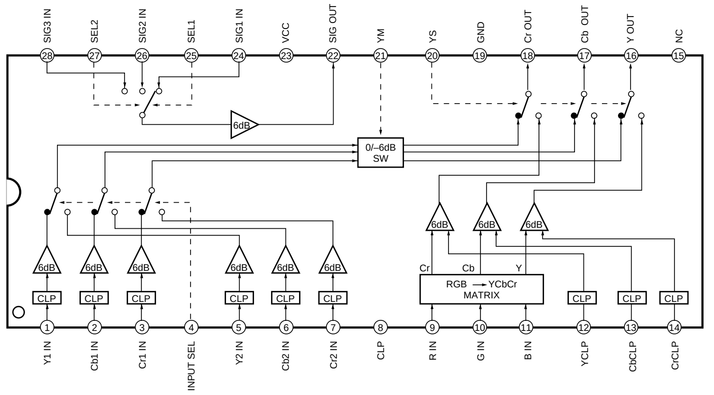
CXA1855Q (IC1101)


S1
C1
RV1
Y1
LV1
V1
LTV
TV
RTV
COUT1
VCC
YOUT1
V2
LV2
Y2
RV2
C2
S2
V3
LV3
Y3
RV3
C3
S3
SELECTOR
6dB
0dB
BIAS
VOUT1
YIN1
TRAP1
CIN1
VOUT2
YOUT2
TRAP2
COUT2
VOUT3
LEV
LV1-3,LTV
REV
RV1-3,RTV
LVE
LOGIC
S1-3
TRAP1
VOUT1
LOUT1
ROUT1
YIN1
GND
CIN1
MUTE
EV
REV
LEV
SCL
SDA
ADR
ROUT3
VOUT3
LOUT3
COUT2
ROUT2
YOUT2
LOUT2
VOUT2
TRAP2

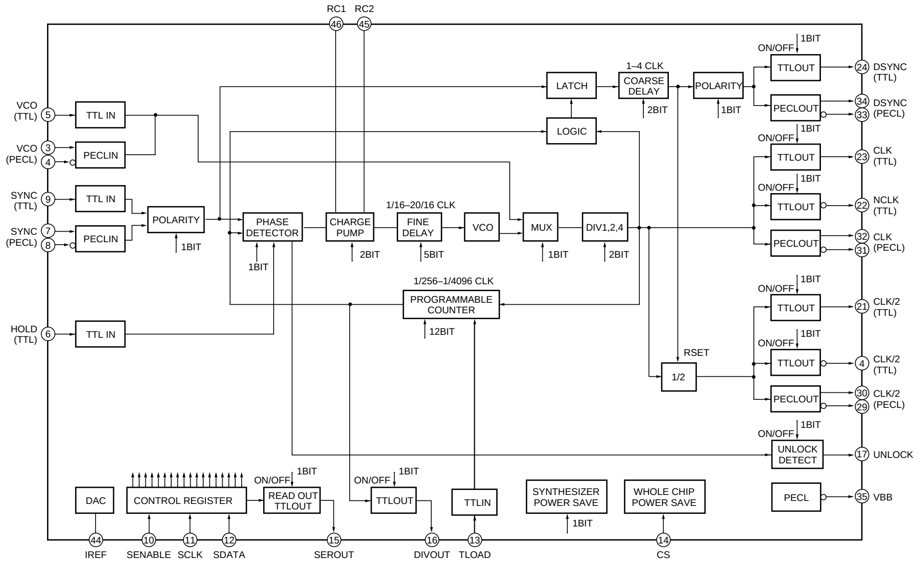
CXA2011Q (IC1601)


SS VCC
SW VCC
HD R IN
HD G IN
HD B IN
IN3 GND
HD Y IN2
Pb IN2
Pr IN2
IN2 GND
HD Y IN1
Pb IN1
Pr IN1
IN1 GND
Y IN
R-Y IN
B-Y IN
IN0 GND
SW GND
SYNC OUT
HD SYNC IN
EXT CS IN
EXT HS IN
EXT VS IN
HS OUT
VS OUT
VIDEO VS OUT
VIDEO HS OUT
VS FIL
VS IN
HS IN
SS GND
SYNC SEL
SYNC SW.1
HD SYNC SEP
SYNC SW.2
VIDEO SYNC SEP
RGB → YUV
Y/Pb/Pr → YUV
ATT (-6dB)
YUV SW
SIG SEL
IIC BUS DECODE
HD SYNC
SYNC SEL
SYNC SW
RGB CUTOFF
RGB DRIVE
GAMMA LEVEL
SUB BRIGHT
DRIVE LEVEL
GAMMA
SUB BRIGHT
DRIVE LEVEL
CLAMP
ABL SW
ABL AMP
H.V SYNC
AKB RGB CUTOFF
RGB BLK
RGB S/H
AKD-T
TIMING GEN
CLAMP PULSE
AKB REF PULSE
B-Y OUT
R-Y OUT
Y OUT
ADRS
SCL
SDA
D GND
R IN
G IN
B IN
ABL IN
ABL FIL
PABL FIL
IREF
AKB VCC
IK IN
R OUT
R S/H C
G OUT
G S/H C
B OUT
B S/H C
AKB GND
HP
SSCP
V BLK
SW0
SW1
SW2
SW3
N.C.
TEST OUT

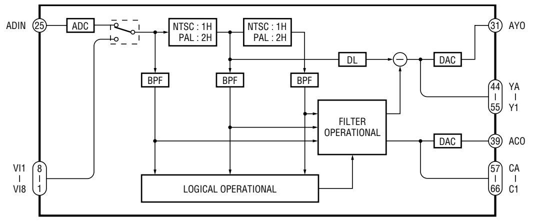
CXA2119M (IC1410)


SIG3 IN
SEL2
SIG2 IN
SEL1
SIG1 IN
VCC
SIG OUT
YM
YS
GND
Cr OUT
Cb OUT
Y OUT
NC
6dB
0/–6dB SW
CLP
Cr
Cb
Y
RGB → YCbCr MATRIX
Y1 IN
Cb1 IN
Cr1 IN
INPUT SEL
Y2 IN
Cb2 IN
Cr2 IN
CLP
R IN
G IN
B IN
YCLP
CbCLP
CrCLP

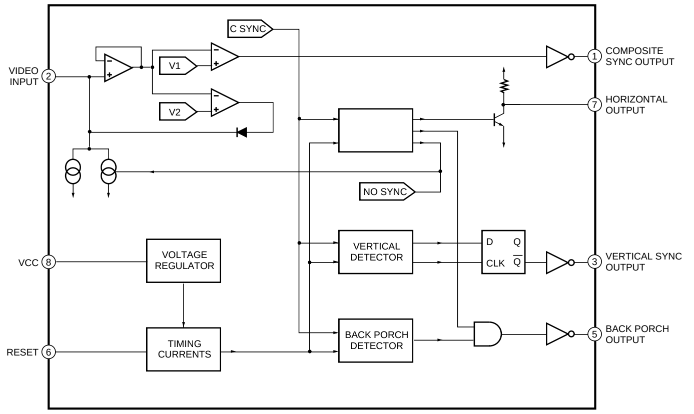
CXA3106AQ (IC1905)


RC1
RC2
VCO (TTL)
VCO (PECL)
SYNC (TTL)
SYNC (PECL)
HOLD (TTL)
TTL IN
PECLIN
POLARITY
PHASE DETECTOR
CHARGE PUMP
1/16–20/16 CLK
FINE DELAY
VCO
MUX
DIV1,2,4
LATCH
1–4 CLK
COARSE DELAY
LOGIC
POLARITY
1/256–1/4096 CLK
PROGRAMMABLE COUNTER
12BIT
1BIT
2BIT
5BIT
ON/OFF
TTLOUT
PECLOUT
RSET
1/2
UNLOCK DETECT
PECL
DAC
CONTROL REGISTER
READ OUT TTLOUT
TTLIN
SYNTHESIZER POWER SAVE
WHOLE CHIP POWER SAVE
DSYNC (TTL)
DSYNC (PECL)
CLK (TTL)
NCLK (TTL)
CLK (PECL)
CLK/2 (TTL)
CLK/2 (PECL)
UNLOCK
VBB
IREF
SENABLE
SCLK
SDATA
SEROUT
DIVOUT
TLOAD
CS

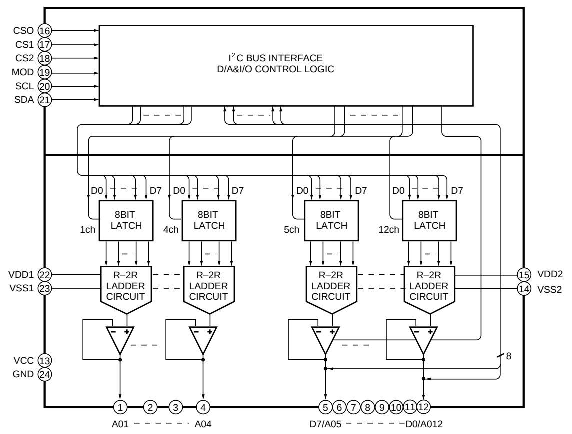
CXD2024AQ (IC1104)


ADIN
ADC
NTSC : 1H PAL : 2H
BPF
DL
DAC
FILTER OPERATIONAL
LOGICAL OPERATIONAL
AYO
YA
Y1
ACO
CA
C1
VI1
VI8

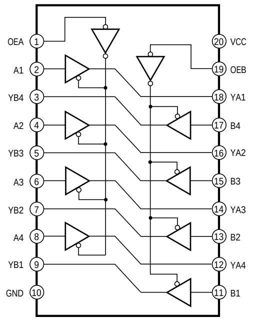
GS4981CTA (IC1406)


C SYNC
VIDEO INPUT
V1
V2
NO SYNC
VCC
VOLTAGE REGULATOR
RESET
TIMING CURRENTS
VERTICAL DETECTOR
BACK PORCH DETECTOR
D
Q
CLK
COMPOSITE SYNC OUTPUT
HORIZONTAL OUTPUT
VERTICAL SYNC OUTPUT
BACK PORCH OUTPUT

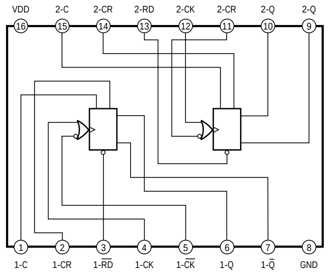
MB88141APFV-ER (IC1004, 1008)


CSO 16
CS1 17
CS2 18
MOD 19
SCL 20
SDA 21
I²C BUS INTERFACE
D/A&I/O CONTROL LOGIC
D0 D7
8BIT LATCH
1ch 4ch 5ch 12ch
R–2R LADDER CIRCUIT
VDD1 22
VSS1 23
VCC 13
GND 24
15 VDD2
14 VSS2
A01 A04 D7/A05 D0/A012

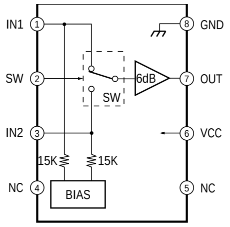
MC74F244MEL (IC9104, 9105)


OEA 1
A1 2
YB4 3
A2 4
YB3 5
A3 6
YB2 7
A4 8
YB1 9
GND 10
20 VCC
19 OEB
18 YA1
17 B4
16 YA2
15 B3
14 YA3
13 B2
12 YA4
11 B1

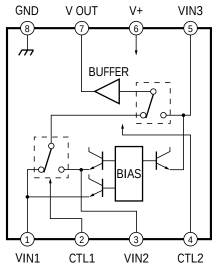
MC74HC4538AF-T2 (IC1409)


VDD 2-C 2-CR 2-RD 2-CK 2-CR 2-Q 2-Q
16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
1-C 1-CR 1-RD 1-CK 1-CK 1-Q 1-Q GND

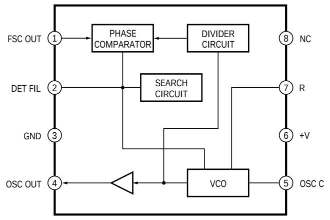
MM1112XFBE (IC1403, 1404)


IN1 1
SW 2
IN2 3
NC 4
8 GND
7 OUT
6 VCC
5 NC
6dB
SW
15K 15K
BIAS

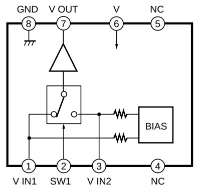
NJM2235M-T1 (IC1102)


GND V OUT V+ VIN3
8 7 6 5
BUFFER
BIAS
1 2 3 4
VIN1 CTL1 VIN2 CTL2

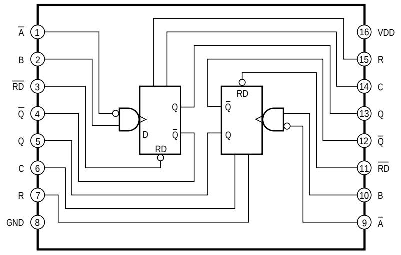
NJM2240M (IC1103)


FSC OUT 1
DET FIL 2
GND 3
OSC OUT 4
PHASE COMPARATOR
DIVIDER CIRCUIT
SEARCH CIRCUIT
VCO
8 NC
7 R
6 +V
5 OSC C

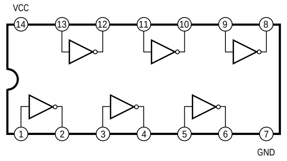
NJM2533M (IC1105, 1106)


GND V OUT V NC
8 7 6 5
BIAS
1 2 3 4
V IN1 SW1 V IN2 NC

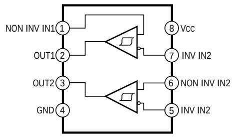
PC74HC123D-T (IC1909, 9005)


A 1
B 2
RD 3
Q 4
Q 5
C 6
R 7
GND 8
16 VDD
15 R
14 C
13 Q
12 Q
11 RD
10 B
9 A
D Q RD

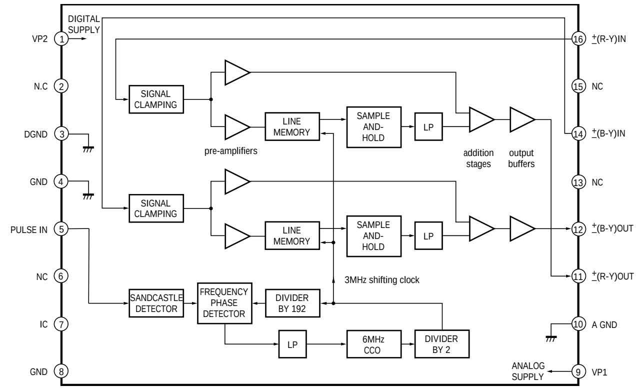
SN74HCU04ANS-E20 (IC1251)


VCC
14 13 12 11 10 9 8
1 2 3 4 5 6 7
GND

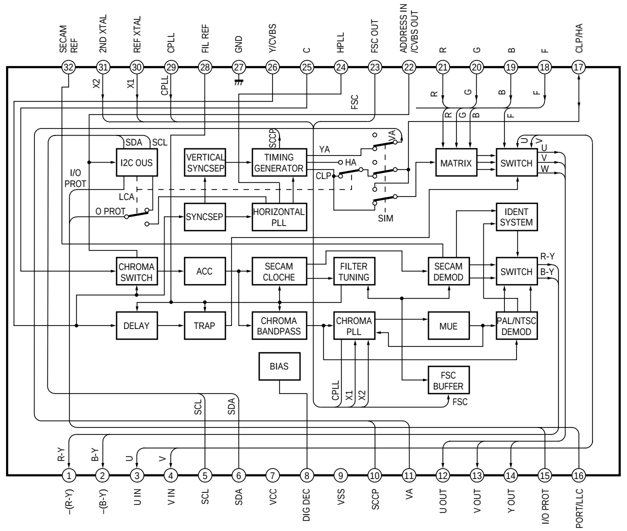
SN75157 (IC1903)


NON INV IN1 1
OUT1 2
OUT2 3
GND 4
8 Vcc
7 INV IN2
6 NON INV IN2
5 INV IN2

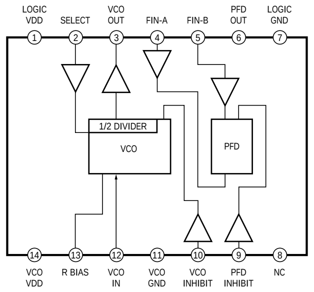
TDA4665T-T (IC1401)


DIGITAL SUPPLY
VP2 1
N.C 2
DGND 3
GND 4
PULSE IN 5
NC 6
IC 7
GND 8
SIGNAL CLAMPING
LINE MEMORY
SAMPLE AND-HOLD
LP
pre-amplifiers
addition stages
output buffers
SANDCASTLE DETECTOR
FREQUENCY PHASE DETECTOR
DIVIDER BY 192
3MHz shifting clock
6MHz CCO
DIVIDER BY 2
ANALOG SUPPLY
16 ±(R-Y)IN
15 NC
14 ±(B-Y)IN
13 NC
12 ±(B-Y)OUT
11 ±(R-Y)OUT
10 A GND
9 VP1

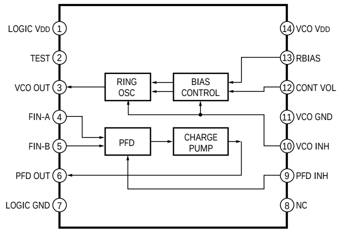
TDA9141-N2C (IC1402)


SECAM REF
2ND XTAL
REF XTAL
CPLL
FIL REF
GND
Y/CVBS
C
HPLL
FSC OUT
ADDRESS IN /CVBS OUT
R G B F
CLP/HA
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
I2C OUS
SDA SCL
VERTICAL SYNCSEP
TIMING GENERATOR
MATRIX
SWITCH
I/O PROT
O PROT
SYNCSEP
HORIZONTAL PLL
IDENT SYSTEM
SIM
CHROMA SWITCH
ACC
SECAM CLOCHE
FILTER TUNING
SECAM DEMOD
DELAY
TRAP
CHROMA BANDPASS
CHROMA PLL
MUE
PAL/NTSC DEMOD
BIAS
FSC BUFFER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
–(R-Y) –(B-Y) U IN V IN SCL SDA VCC DIG DEC VSS SCCP VA U OUT V OUT Y OUT I/O PROT O PORT/LLC

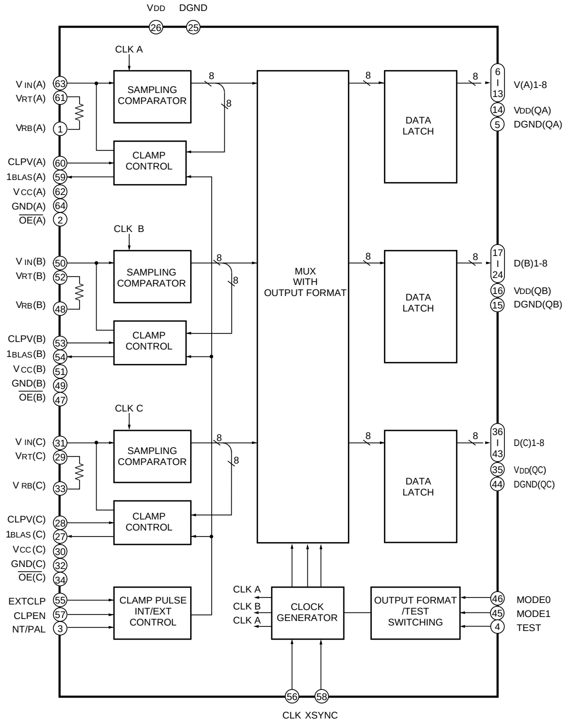
TLC2932IPW-E20 (IC9001)


LOGIC VDD SELECT VCO OUT FIN-A FIN-B PFD OUT LOGIC GND
1 2 3 4 5 6 7
1/2 DIVIDER
VCO
PFD
14 13 12 11 10 9 8
VCO VDD R BIAS VCO IN VCO GND VCO INHIBIT PFD INHIBIT NC

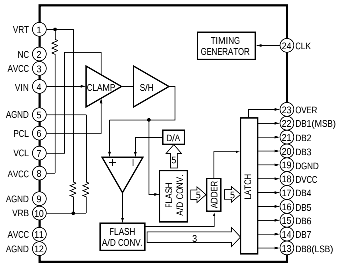
TLC2933IPW-E20 (IC9004)

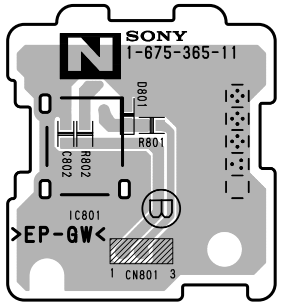

LOGIC VDD 1
TEST 2
VCO OUT 3
FIN-A 4
FIN-B 5
PFD OUT 6
LOGIC GND 7
RING OSC
BIAS CONTROL
PFD
CHARGE PUMP
14 VCO VDD
13 RBIAS
12 CONT VOL
11 VCO GND
10 VCO INH
9 PFD INH
8 NC

TLC5733AIPM (IC9006)


VDD DGND
CLK A CLK B CLK C
V IN(A) VRT(A) VRB(A)
SAMPLING COMPARATOR
CLAMP CONTROL
CLPV(A) 1BIAS(A) VCC(A) GND(A) OE(A)
MUX WITH OUTPUT FORMAT
DATA LATCH
V(A)1-8 VDD(QA) DGND(QA)
D(B)1-8 VDD(QB) DGND(QB)
D(C)1-8 VDD(QC) DGND(QC)
EXTCLP CLPEN NT/PAL
CLAMP PULSE INT/EXT CONTROL
CLOCK GENERATOR
OUTPUT FORMAT /TEST SWITCHING
MODE0 MODE1 TEST
CLK XSYNC

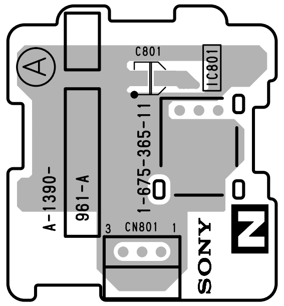
uPC659AGS-E2 (IC1253)


VRT 1
NC 2
AVCC 3
VIN 4
AGND 5
PCL 6
VCL 7
AVCC 8
AGND 9
VRB 10
AVCC 11
AGND 12
CLAMP
S/H
TIMING GENERATOR
D/A
FLASH A/D CONV.
ADDER
LATCH
24 CLK
23 OVER
22 DB1(MSB)
21 DB2
20 DB3
19 DGND
18 DVCC
17 DB4
16 DB5
15 DB6
14 DB7
13 DB8(LSB)


SONY
1-675-365-11
D801
R801
R802
C802
IC801
>EP-GW<
1
CN801
3
B

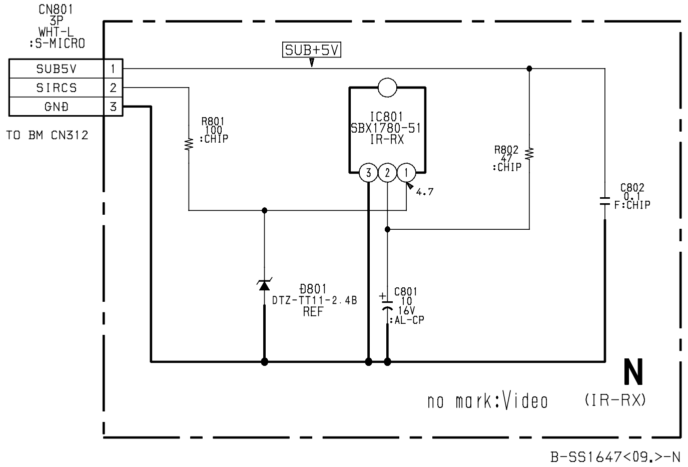
N – B SIDE –

SUFFIX ; -11


A
C801
IC801
A-1390-
961-A
1-675-365-11
3
CN801
1
SONY

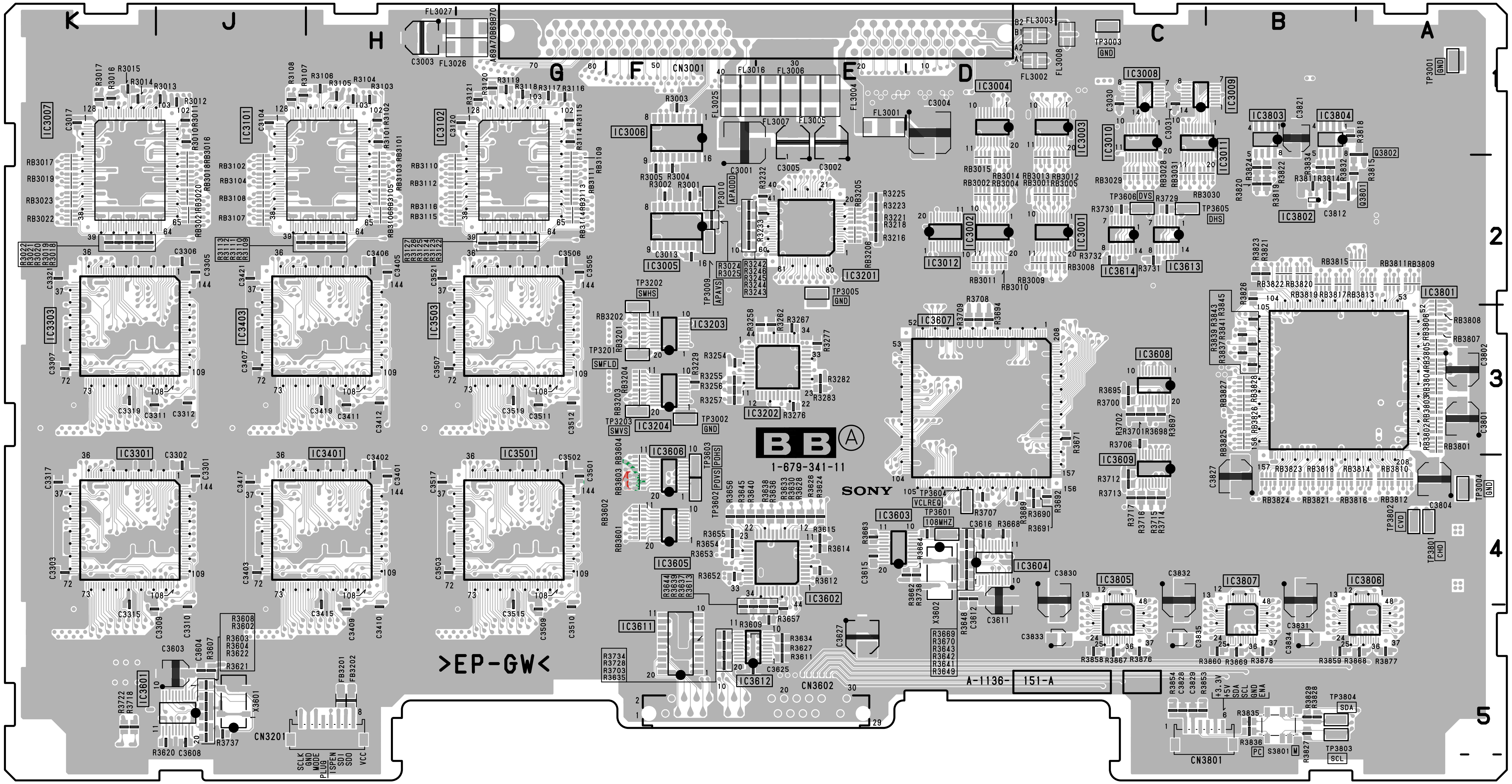
N – A SIDE –

SUFFIX ; -11


CN801
3P
WHT-L
:S-MICRO
SUB5V
SIRCS
GND
1
2
3
TO BM CN312
SUB+5V
R801
100
:CHIP
IC801
SBX1780-51
IR-RX
3
2
1
4.7
R802
47
:CHIP
C802
0.1
F:CHIP
D801
DTZ-TT11-2.4B
REF
C801
10
16V
:AL-CP
N
no mark:Video
(IR-RX)
B-SS1647<09.>-N

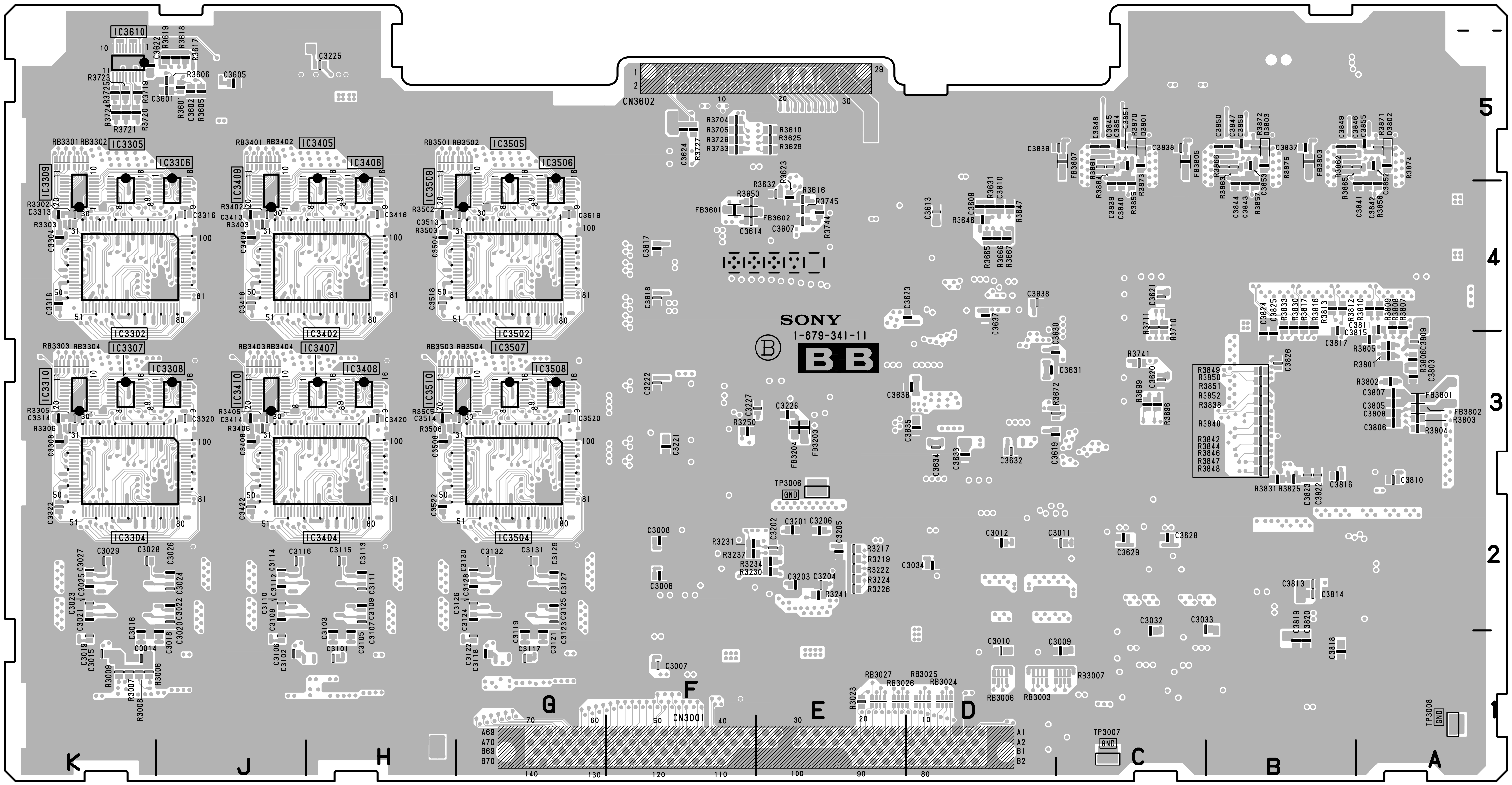
–
BB
–
1-679-341-11

IC3001	D-2
IC3002	E-2
IC3003	D-1
IC3004	D-1
IC3005	F-2
IC3006	F-1
IC3007	K-1
IC3008	C-2
IC3009	C-2
IC3010	D-1
IC3011	C-1
IC3012	E-2
IC3101	J-1
IC3102	H-2
IC3201	E-2
IC3202	F-3
IC3203	F-4
IC3204	F-4
IC3301	K-4
IC3303	K-3
IC3401	H-4
IC3403	J-3
IC3501	G-4
IC3503	H-3
IC3601	C-2
IC3602	C-5
IC3603	C-3
IC3604	D-2
IC3605	C-4
IC3606	B-4
IC3607	E-3
IC3608	E-4
IC3609	E-5
IC3611	F-5
IC3612	F-5
IC3613	C-2
IC3614	C-2
IC3801	A-3
IC3851	A-1
IC3901	A-4
IC3902	A-4
IC3903	B-5
IC3904	B-5
IC3905	A-5
TP3001	A-1
TP3002	F-3
TP3003	C-1
TP3994	A-4
TP3005	E-2
TP3009	F-1
TP3010	G-1
TP3201	F-4
TP3202	F-4
TP3203	F-4
TP3601	C-3
TP3602	C-4
TP3603	B-4
TP3604	D-4
TP3605	C-2
TP3606	C-1


K
J
H
G
F
E
D
C
B
A
1
2
3
4
5
>EP-GW<
BB
1-679-341-11
SONY
CN3001
CN3201
CN3602
CN3801
A-1136-151-A

BB – A SIDE –

SUFFIX ; -11


SONY
1-679-341-11
B B
CN3602
CN3001
IC3610
IC3305
IC3306
IC3309
IC3302
IC3307
IC3308
IC3310
IC3304
IC3405
IC3406
IC3409
IC3402
IC3407
IC3408
IC3410
IC3404
IC3505
IC3506
IC3509
IC3502
IC3507
IC3508
IC3510
IC3504
TP3006
TP3007
TP3008
GND
K
J
H
G
F
E
D
C
B
A
5
4
3
2
1

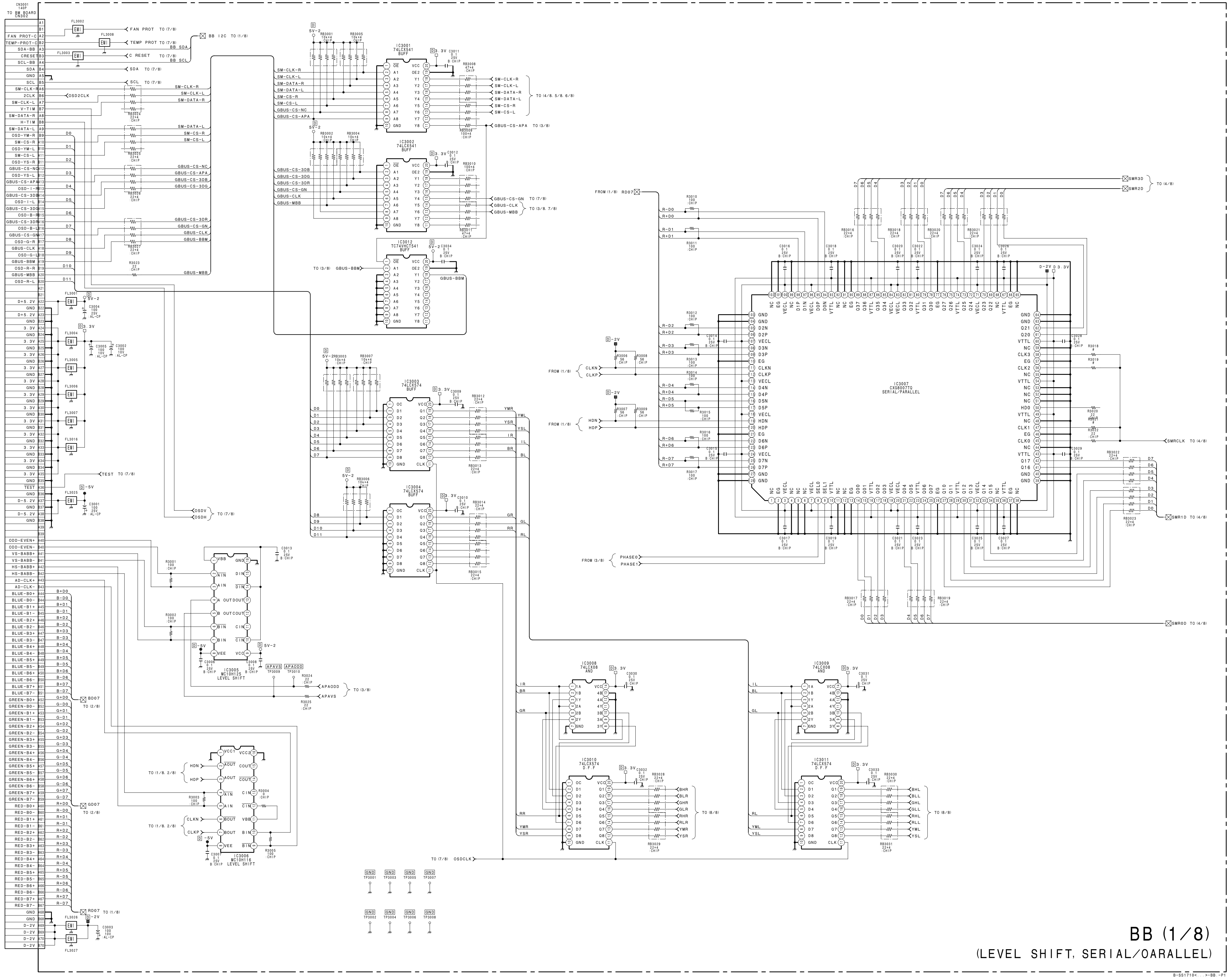
BB – B SIDE –

SUFFIX ; -11

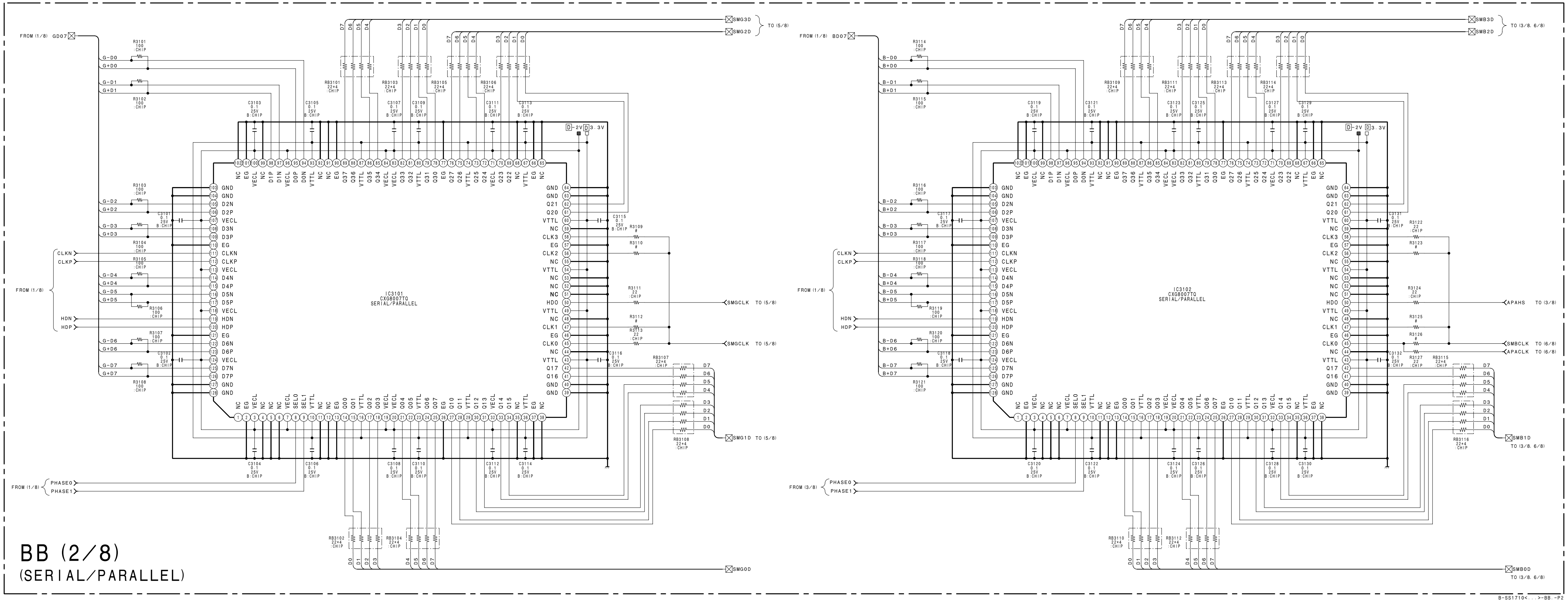
–
BB
–
1-679-341-11

IC3302	K-4
IC3304	K-2
IC3305	K-5
IC3306	K-5
IC3307	K-3
IC3308	J-3
IC3309	K-5
IC3310	K-3
IC3402	H-4
IC3403	H-2
IC3405	J-5
IC3406	H-5
IC3407	H-3
IC3408	H-3
IC3409	J-5
IC3410	J-3
IC3502	G-4
IC3504	G-2
IC3505	G-5
IC3506	G-5
IC3507	G-3
IC3508	F-3
IC3509	G-5
IC3510	G-3
IC3610	D-2
IC3802	B-4
IC3803	D-5
IC3852	B-2
IC3853	C-5
IC3906	B-5
IC3907	D-5
TP3006	E-2

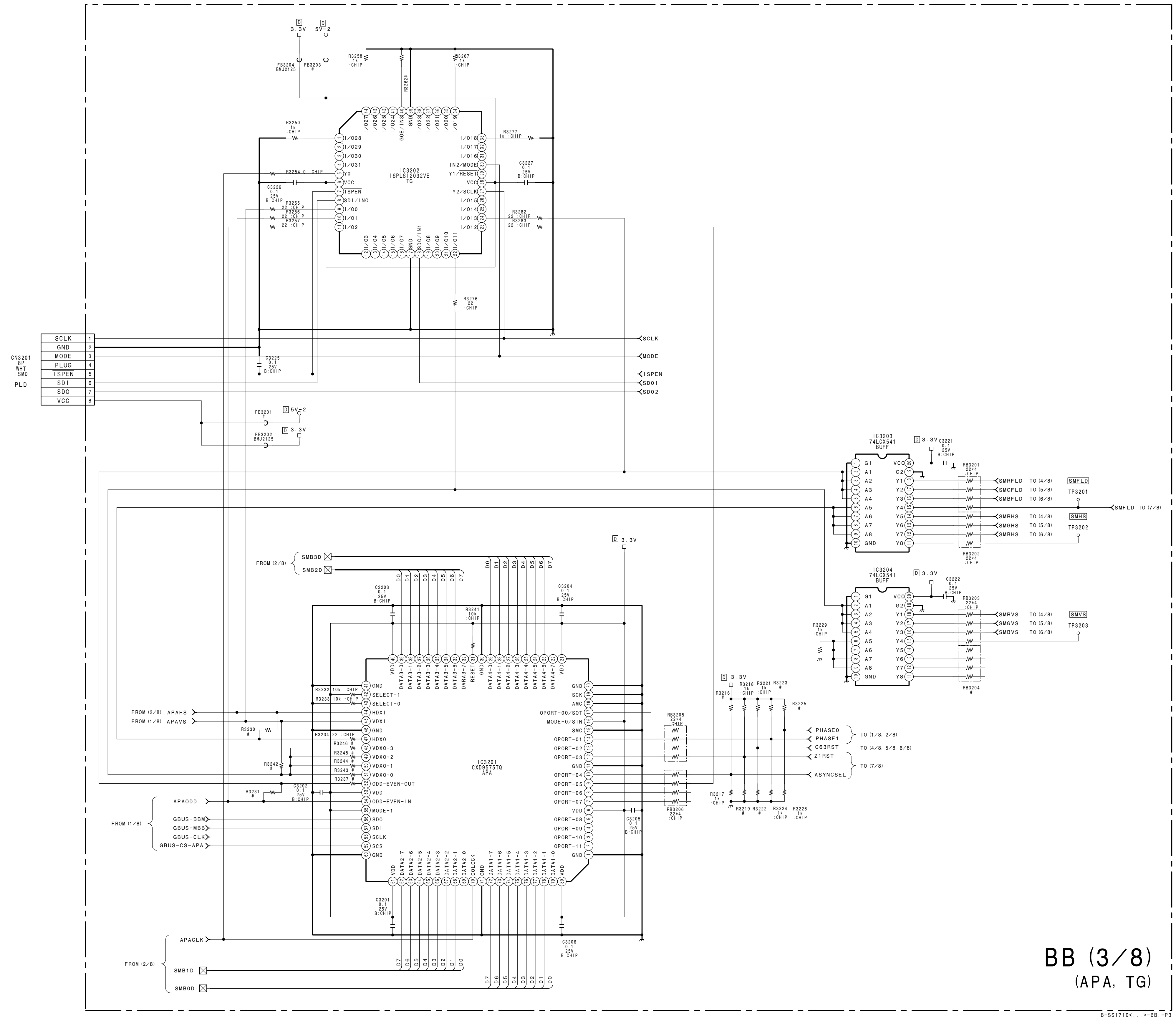
- Refer to page 10-28, 10-29 for Printed Wiring Board


CN3001
TO BM BOARD CN302
IC3001
74LCX541
BUFF
IC3002
74LCX541
BUFF
IC3012
TC74VHCT541
BUFF
IC3003
74LCX574
BUFF
IC3004
74LCX574
BUFF
IC3005
MC10H125
LEVEL SHIFT
IC3006
MC10H116
LEVEL SHIFT
IC3007
CXD8007TQ
SERIAL/PARALLEL
IC3008
74LCX08
AND
IC3009
74LCX08
AND
IC3010
74LCX574
D.F.F
IC3011
74LCX574
D.F.F
FAN PROT TO (7/8)
TEMP PROT TO (7/8)
C RESET TO (7/8)
BB I2C TO (1/8)
SDA TO (7/8)
SCL TO (7/8)
TO (4/8, 5/8, 6/8)
GBUS-CS-APA TO (3/8)
TO (3/8, 7/8)
TO (3/8) GBUS-BBM
FROM (1/8) RD07
SMR3D
SMR2D
TO (4/8)
FROM (1/8) CLKN CLKP
FROM (1/8) HDN HDP
SMRCLK TO (4/8)
SMR1D TO (4/8)
SMR0D TO (4/8)
FROM (3/8) PHASE0 PHASE1
OSDV OSDH TO (7/8)
APAODD APAVS TO (3/8)
BD07 TO (2/8)
GD07 TO (2/8)
RD07 TO (1/8)
TO (1/8, 2/8) HDN HDP
TO (1/8, 2/8) CLKN CLKP
TO (8/8)
TO (7/8) OSDCLK
TEST TO (7/8)
GND TP3001
GND TP3003
GND TP3005
GND TP3007
GND TP3002
GND TP3004
GND TP3006
GND TP3008
BB (1/8)
(LEVEL SHIFT, SERIAL/OARALLEL)
B-SS1710<....>-BB -P1

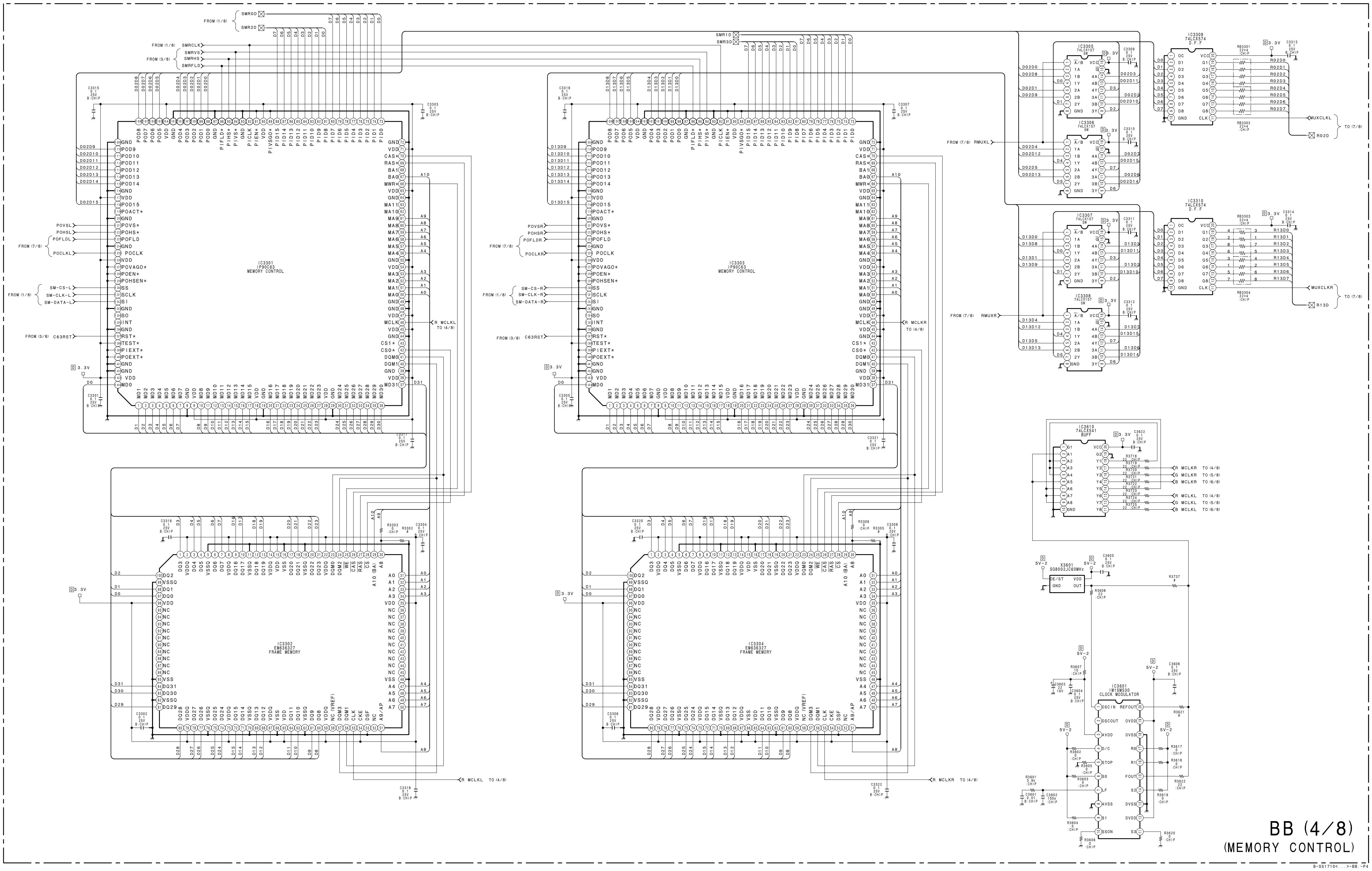
- Refer to page 10-28, 10-29 for Printed Wiring Board


FROM (1/8) GD07
SMG3D
SMG2D
TO (5/8)
IC3101
CXD8007TQ
SERIAL/PARALLEL
-2V
3.3V
CLKN
CLKP
FROM (1/8)
HDN
HDP
SMGCLK TO (5/8)
SMGCLK TO (5/8)
SMG1D TO (5/8)
FROM (1/8) PHASE0
PHASE1
SMG0D
FROM (1/8) BD07
SMB3D
SMB2D
TO (3/8, 6/8)
IC3102
CXD8007TQ
SERIAL/PARALLEL
APAHS TO (3/8)
SMBCLK TO (6/8)
APACLK TO (6/8)
SMB1D
TO (3/8, 6/8)
FROM (3/8) PHASE0
PHASE1
SMB0D
TO (3/8, 6/8)
BB (2/8)
(SERIAL/PARALLEL)
B-SS1710<...>-BB.-P2

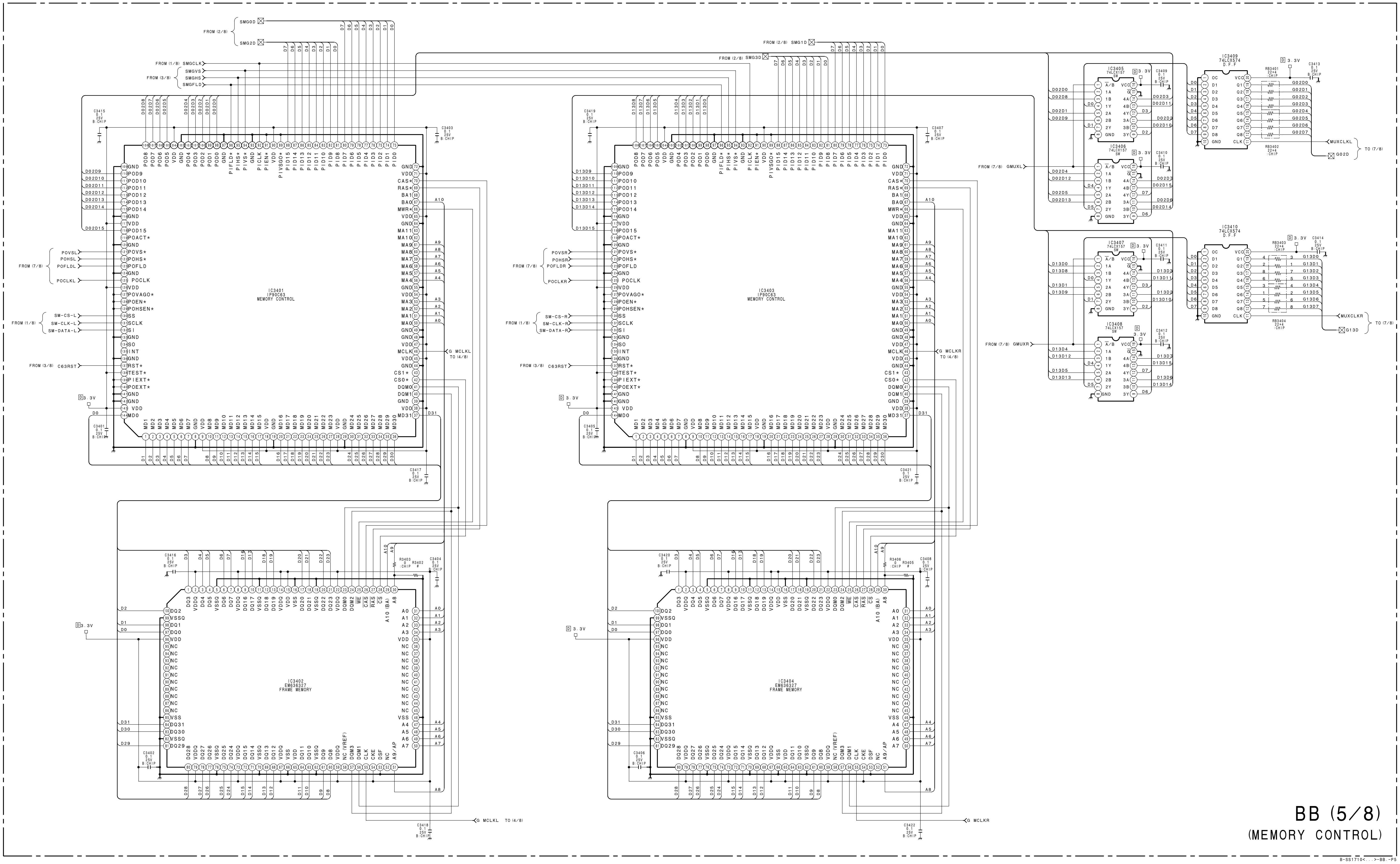
- Refer to page 10-28, 10-29 for Printed Wiring Board


IC3202
ISPLSI2032VE
TG
IC3201
CXD9575TQ
APA
IC3203
74LCX541
BUFF
IC3204
74LCX541
BUFF
CN3201
8P
WHT
SMD
PLD
SCLK
GND
MODE
PLUG
ISPEN
SDI
SDO
VCC
SDO1
SDO2
3.3V
5V-2
FB3201
FB3202
BMJ2125
FB3203
FB3204
BMJ2125
FROM (2/8)
SMB3D
SMB2D
SMB1D
SMB0D
FROM (2/8) APAHS
FROM (1/8) APAVS
APAODD
GBUS-BBM
GBUS-MBB
GBUS-CLK
GBUS-CS-APA
FROM (1/8)
APACLK
SMRFLD TO (4/8)
SMGFLD TO (5/8)
SMBFLD TO (6/8)
SMRHS TO (4/8)
SMGHS TO (5/8)
SMBHS TO (6/8)
SMRVS TO (4/8)
SMGVS TO (5/8)
SMBVS TO (6/8)
SMFLD
TP3201
SMHS
TP3202
SMVS
TP3203
SMFLD TO (7/8)
PHASE0
PHASE1
C63RST
Z1RST
ASYNCSEL
TO (1/8, 2/8)
TO (4/8, 5/8, 6/8)
TO (7/8)
RB3201
RB3202
RB3203
RB3204
RB3205
RB3206
BB (3/8)
(APA, TG)
B-SS1710<...>-BB.-P3

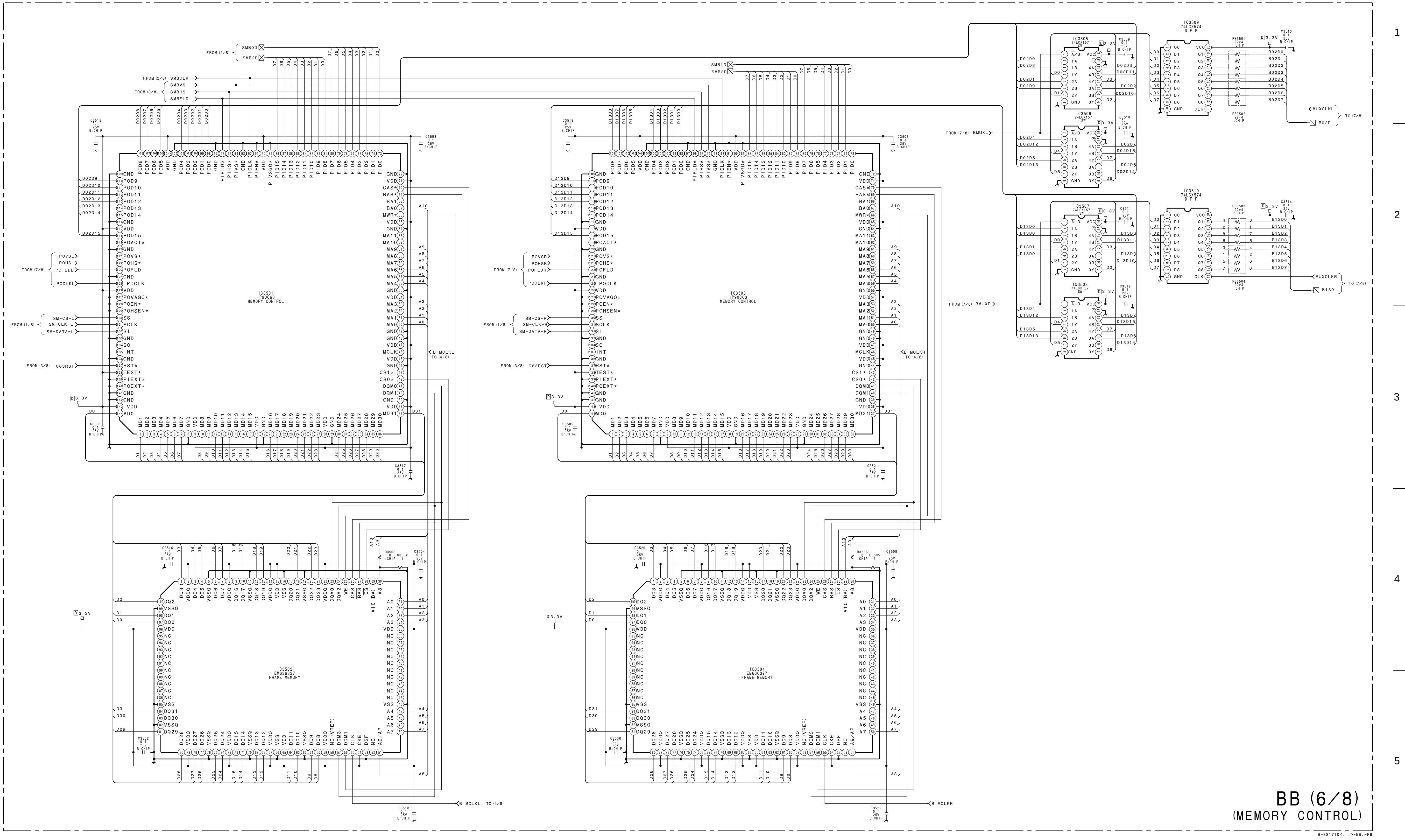
- Refer to page 10-28, 10-29 for Printed Wiring Board


IC3301
IP80C63
MEMORY CONTROL
IC3303
IP80C63
MEMORY CONTROL
IC3302
EM636327
FRAME MEMORY
IC3304
EM636327
FRAME MEMORY
IC3305
74LCX157
SW
IC3306
74LCX157
SW
IC3307
74LCX157
SW
IC3308
74LCX157
SW
IC3309
74LCX574
D.F.F
IC3310
74LCX574
D.F.F
IC3610
74LCX541
BUFF
IC3601
IMISM530
CLOCK MODULATOR
X3601
SG8002JC60MHz
FROM (1/8)
FROM (3/8)
FROM (7/8)
TO (7/8)
TO (4/8)
TO (5/8)
TO (6/8)
R MCLKL TO (4/8)
R MCLKR TO (4/8)
MUXCLKL
MUXCLKR
R02D
R13D
RMUXL
RMUXR
D 3.3V
D 5V-2
BB (4/8)
(MEMORY CONTROL)
B-SS1710<...>-BB-P4

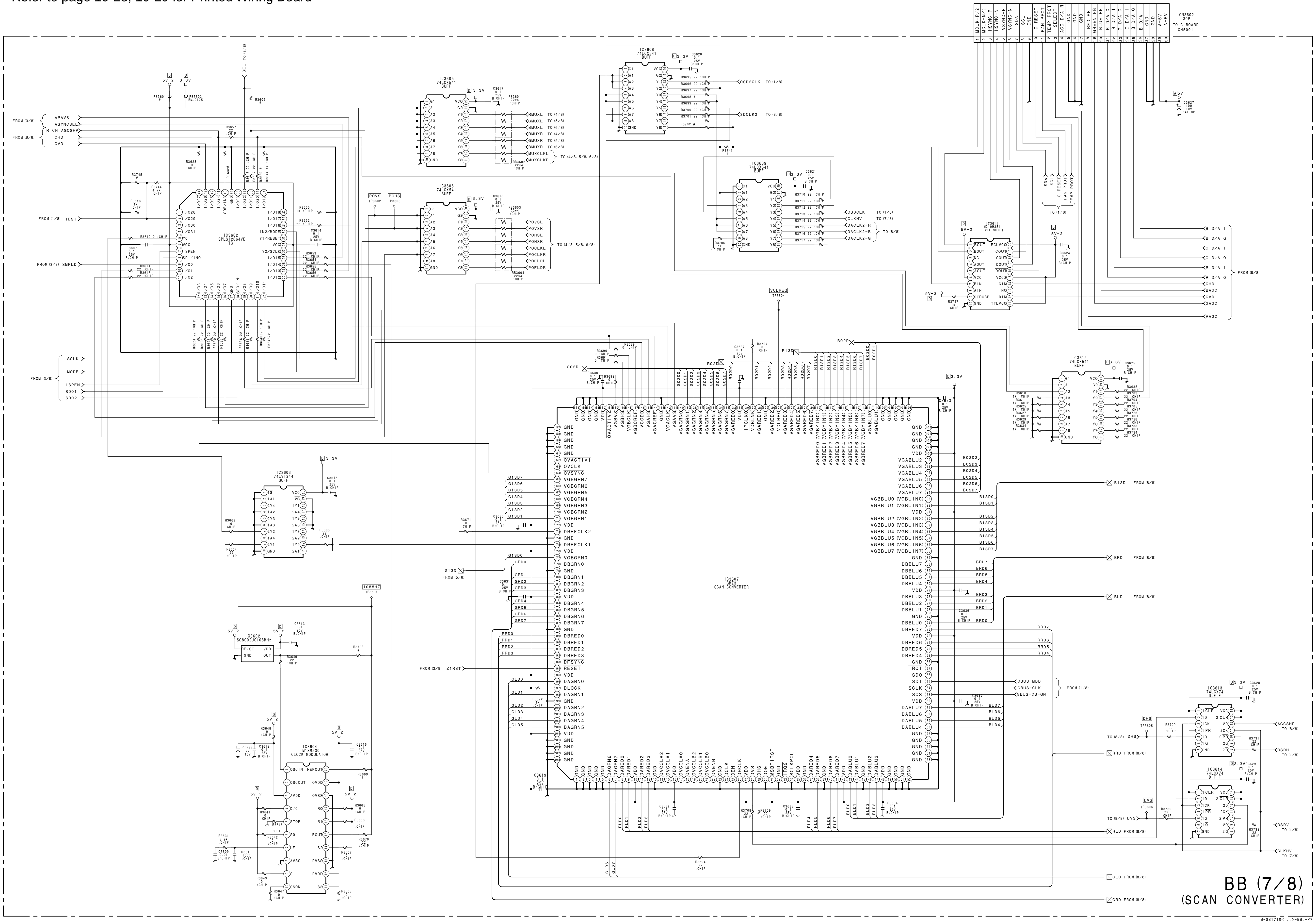
- Refer to page 10-28, 10-29 for Printed Wiring Board


IC3401
IP90C63
MEMORY CONTROL
IC3402
EM636327
FRAME MEMORY
IC3403
IP90C63
MEMORY CONTROL
IC3404
EM636327
FRAME MEMORY
IC3405
74LCX157
SW
IC3406
74LCX157
SW
IC3407
74LCX157
SW
IC3408
74LCX157
SW
IC3409
74LCX574
D.F.F
IC3410
74LCX574
D.F.F
FROM (1/8)
FROM (2/8)
FROM (3/8)
FROM (7/8)
TO (4/8)
TO (7/8)
G MCLKL
G MCLKR
MUXCLKL
MUXCLKR
BB (5/8)
(MEMORY CONTROL)
B-SS1710<...>-BB -P5
1
2
3
4
5
A
B
C
D
E
F
G
H

- Refer to page 10-28, 10-29 for Printed Wiring Board

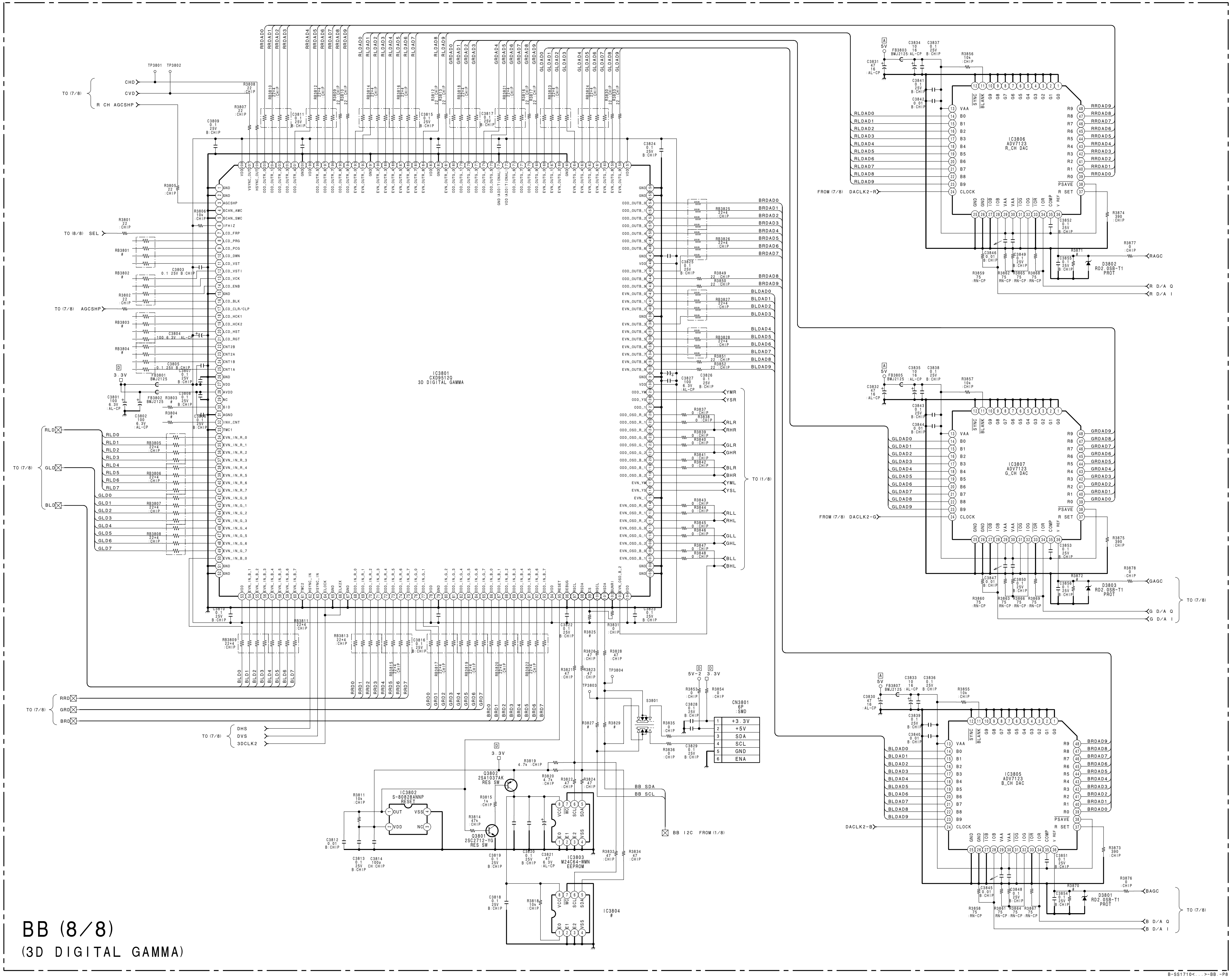

1
2
3
4
5
IC3501
IP90C63
MEMORY CONTROL
IC3502
EM636327
FRAME MEMORY
IC3503
IP90C63
MEMORY CONTROL
IC3504
EM636327
FRAME MEMORY
IC3505
74LCX157
SW
IC3506
74LCX157
SW
IC3507
74LCX157
SW
IC3508
74LCX157
SW
IC3509
74LCX574
D.F.F
IC3510
74LCX574
D.F.F
FROM (2/8)
FROM (3/8)
FROM (7/8)
FROM (1/8)
TO (4/8)
TO (7/8)
SMBCLK
SMBVS
SMBHS
SMBFLD
BMUXL
BMUXR
MUXCLKL
MUXCLKR
B MCLKL
B MCLKR
C63RST
BB (6/8)
(MEMORY CONTROL)
B-SS1710<...>-BB.-P6

- Refer to page 10-28, 10-29 for Printed Wiring Board


CN3602 30P TO C BOARD CN5001
IC3602 ISPLSI2064VE TG
IC3603 74LVT244 BUFF
IC3604 IM15M530 CLOCK MODULATOR
IC3605 74LCX541 BUFF
IC3606 74LCX541 BUFF
IC3607 GM23 SCAN CONVERTER
IC3608 74LCX541 BUFF
IC3609 74LCX541 BUFF
IC3611 MC10H351 LEVEL SHIFT
IC3612 74LCX541 BUFF
IC3613 74LCX74 D FF
IC3614 74LCX74 D FF
X3602 SG8002JC108MHz
108MHZ TP3601
VCLREQ TP3604
POVS TP3602
POHS TP3603
DHS TP3605
DVS TP3606
FROM (3/8)
FROM (8/8)
FROM (1/8)
FROM (5/8)
TO (1/8)
TO (4/8)
TO (7/8)
TO (8/8)
TO (4/8, 5/8, 6/8)
Z1RST
GBUS-MBB
GBUS-CLK
GBUS-CS-GN
AGCSHP
OSDH
OSDV
CLKHV
B-SS1710<...>-BB -P7

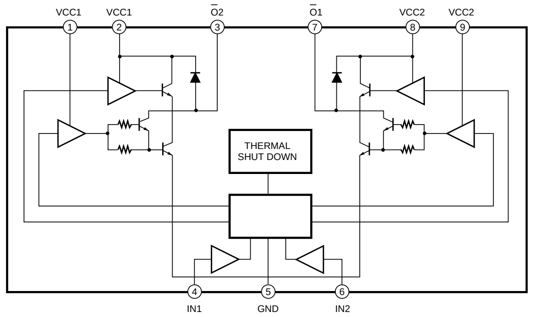
BB (7/8)
(SCAN CONVERTER)

- Refer to page 10-28, 10-29 for Printed Wiring Board

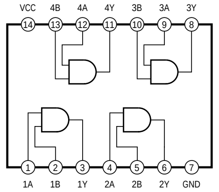

BB (8/8)
(3D DIGITAL GAMMA)
IC3801
CXD9512Q
3D DIGITAL GAMMA
IC3806
ADV7123
R_CH DAC
IC3807
ADV7123
G_CH DAC
IC3805
ADV7123
B_CH DAC
IC3802
S-80828ANNP
RESET
IC3803
M24C64-WMN
EEPROM
IC3804
Q3802
2SA1037AK
RES SW
Q3801
2SC2712-YG
RES SW
CN3801
6P
SMD
+3.3V
+5V
SDA
SCL
GND
ENA
D3801
D3802
D3803
RD2.0SB-T1
PROT
S3801
TO (7/8)
TO (8/8) SEL
TO (1/8)
FROM (7/8) DACLK2-R
FROM (7/8) DACLK2-G
DACLK2-B
BB I2C FROM (1/8)
BB SDA
BB SCL
RAGC
GAGC
BAGC
R D/A Q
R D/A I
G D/A Q
G D/A I
B D/A Q
B D/A I
DHS
DVS
3DCLK2
CHD
CVD
R CH AGCSHP
AGCSHP
RLD
GLD
BLD
RRD
GRD
BRD
YMR
YSR
RLR
RHR
GLR
GHR
BLR
BHR
YML
YSL
RLL
RHL
GLL
GHL
BLL
BHL
5V-2
3.3V
5V
B-SS1710<...>-BB.-P8

BC Board IC Block Diagrams

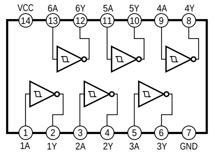
M54544AL (IC4306 – 4308)


VCC1
VCC1
$\overline{O}2$
$\overline{O}1$
VCC2
VCC2
1
2
3
7
8
9
THERMAL SHUT DOWN
4
5
6
IN1
GND
IN2

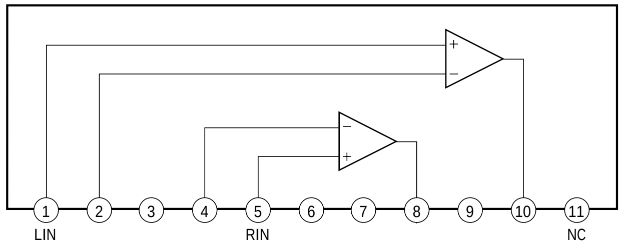
PC74HC08D-T (IC4305)


VCC
4B
4A
4Y
3B
3A
3Y
14
13
12
11
10
9
8
1
2
3
4
5
6
7
1A
1B
1Y
2A
2B
2Y
GND

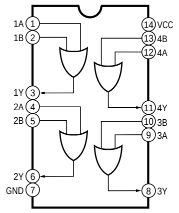
PC74HC14D-T (IC4304)


VCC
6A
6Y
5A
5Y
4A
4Y
14
13
12
11
10
9
8
1
2
3
4
5
6
7
1A
1Y
2A
2Y
3A
3Y
GND

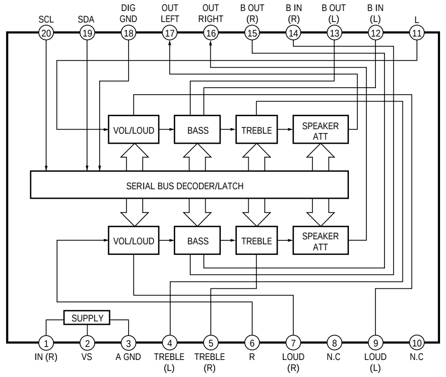
TDA2009A(IC4006)

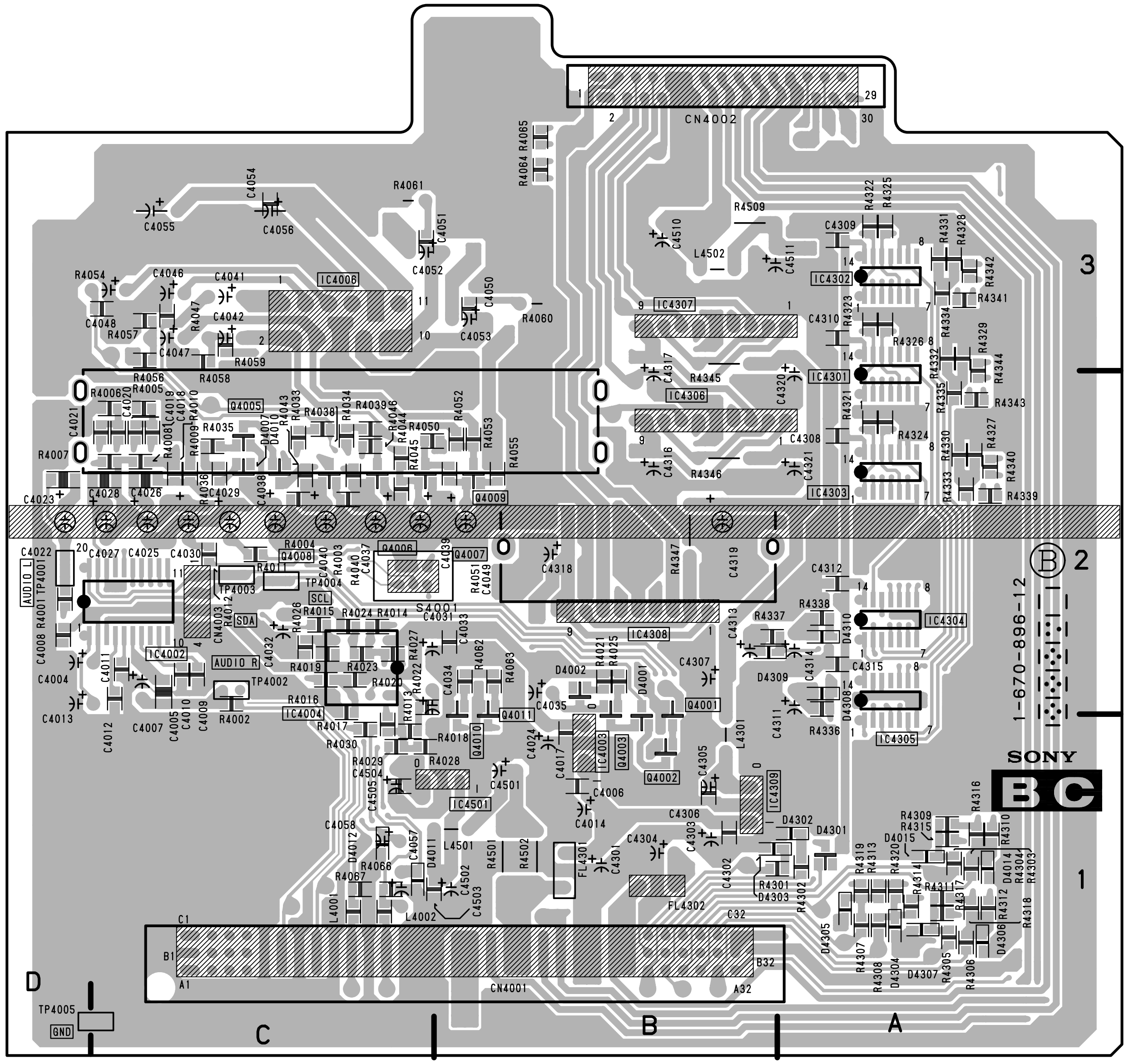

+
−
−
+
1
2
3
4
5
6
7
8
9
10
11
LIN
RIN
NC

PC74HC32D-T (IC4301 – 4303)


1A
1B
1Y
2A
2B
2Y
GND
1
2
3
4
5
6
7
14
13
12
11
10
9
8
VCC
4B
4A
4Y
3B
3A
3Y

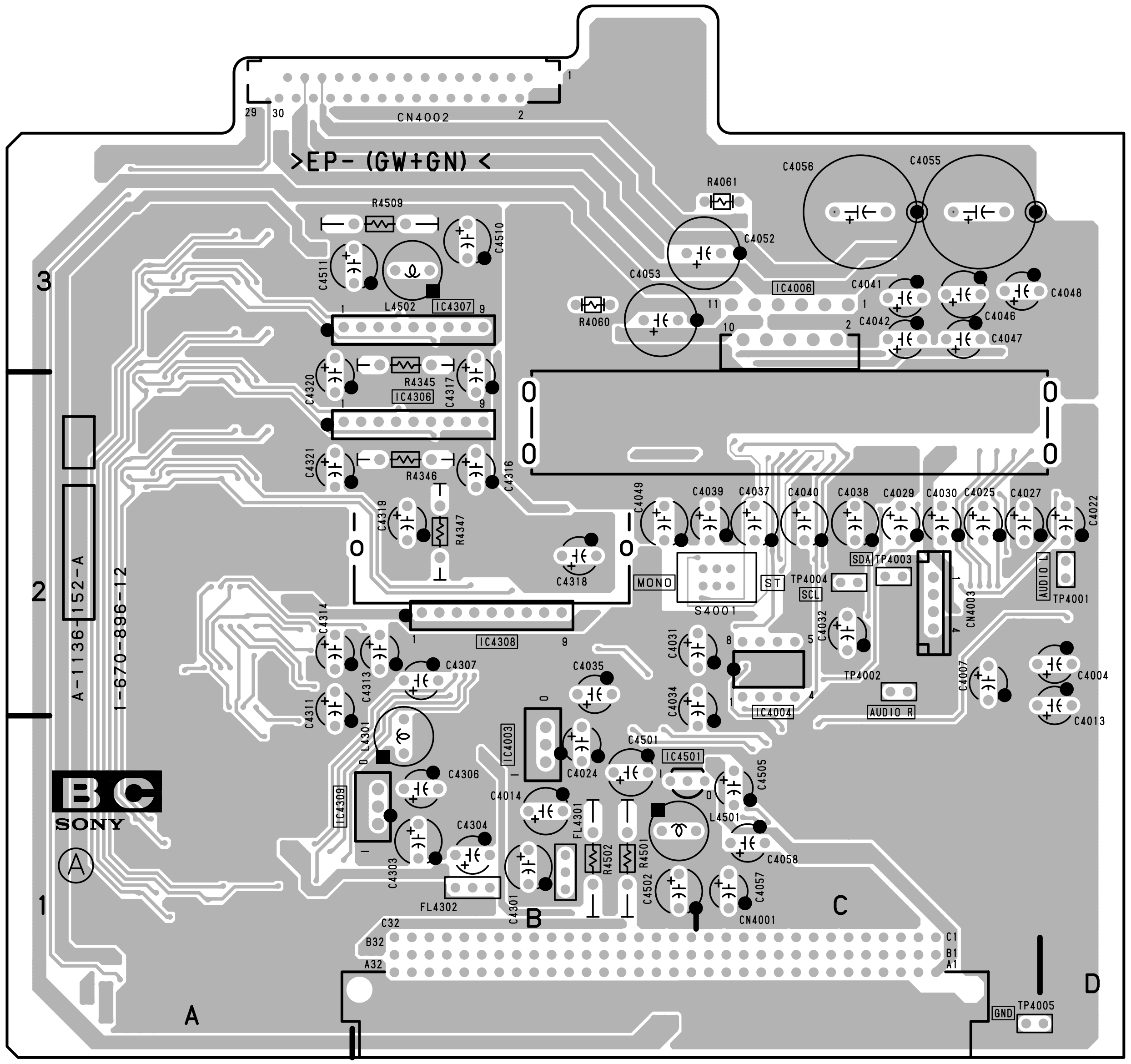
TDA7315D013TR (IC4002)


SCL
SDA
DIG GND
OUT LEFT
OUT RIGHT
B OUT (R)
B IN (R)
B OUT (L)
B IN (L)
L
20
19
18
17
16
15
14
13
12
11
VOL/LOUD
BASS
TREBLE
SPEAKER ATT
SERIAL BUS DECODER/LATCH
VOL/LOUD
BASS
TREBLE
SPEAKER ATT
SUPPLY
1
2
3
4
5
6
7
8
9
10
IN (R)
VS
A GND
TREBLE (L)
TREBLE (R)
R
LOUD (R)
N.C
LOUD (L)
N.C


CN4002
IC4008
IC4307
IC4302
IC4301
IC4306
IC4303
IC4308
IC4304
IC4305
IC4309
IC4002
IC4004
IC4003
IC4501
S4001
FL4301
FL4302
CN4001
TP4005
GND
AUDIO L
AUDIO R
SDA
SCL
1-670-896-12
SONY
BC
A
B
C
D
1
2
3

BC – B SIDE –

SUFFIX ; -12


CN4002
>EP- (GW+GN) <
IC4006
IC4307
IC4306
IC4308
IC4003
IC4309
IC4004
IC4501
S4001
MONO
ST
FL4301
FL4302
CN4001
TP4005
GND
AUDIO L
AUDIO R
SDA
SCL
A-1136-152-A
1-670-896-12
BC
SONY
A
B
C
D
1
2
3

BC – A SIDE –

SUFFIX ; -12

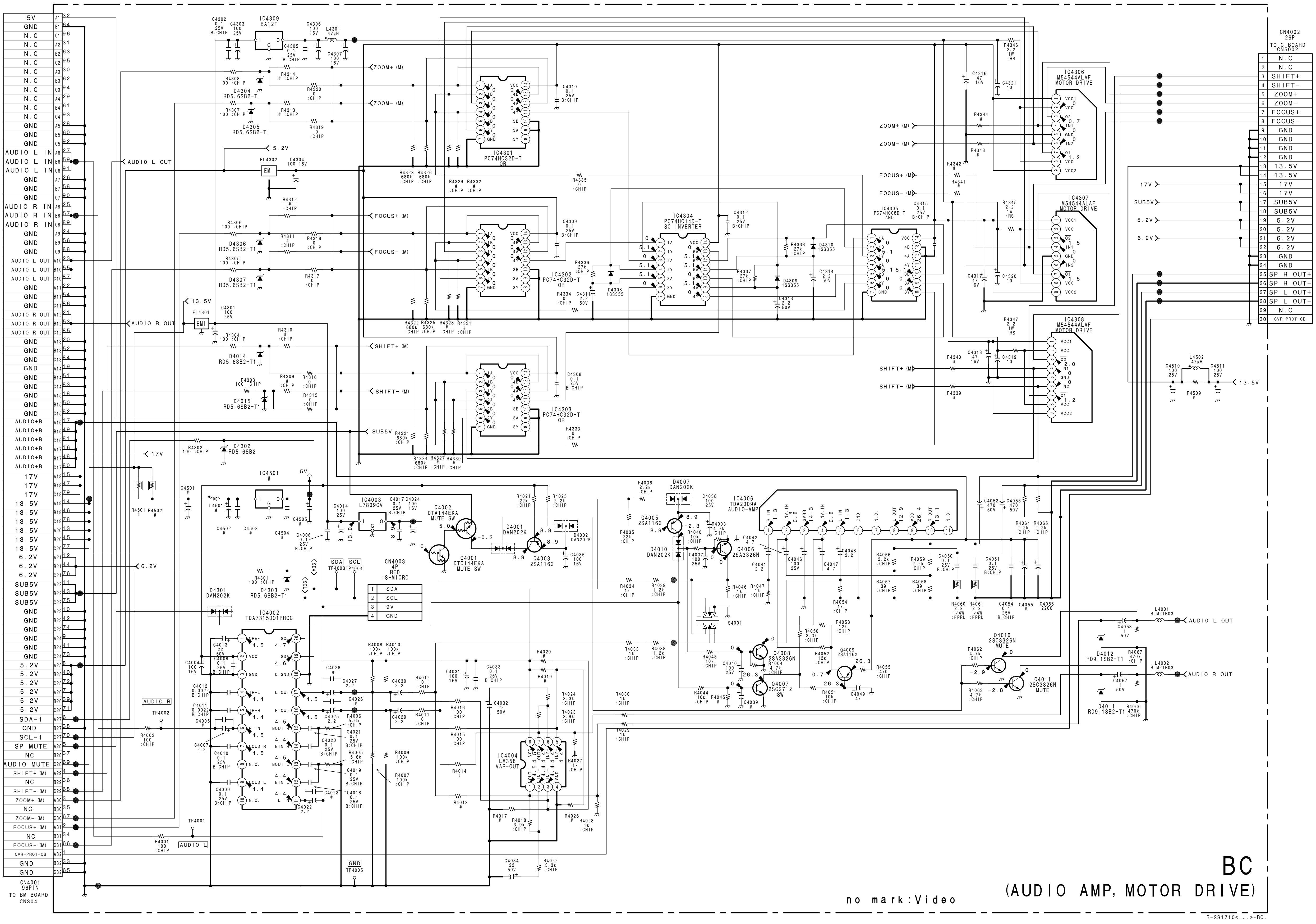
BC

1-670-896-12

D4001	*B-2	IC4303	*A-2
D4002	*B-2	IC4304	*A-2
D4007	*C-2	IC4305	*C-4
D4010	*C-2	IC4306	*A-2
D4011	*C-1	IC4307	*B-2
D4012	*C-1	IC4308	*B-2
D4014	*A-1	IC4309	*B-1
D4015	*A-1		
D4301	*A-1	Q4001	*B-2
D4302	*A-1	Q4002	*B-1
D4303	*B-1	Q4003	*B-1
D4304	*A-1	Q4005	*C-2
D4305	*A-1	Q4006	*C-2
D4306	*A-1	Q4007	*C-2
D4307	*A-1	Q4008	*C-2
D4308	*A-2	Q4009	*C-2
D4309	*A-2	Q4010	*B-2
D4310	*A-2	Q4011	*B-2
IC4003	*B-1	TP4001	*C-2
IC4004	*C-2	TP4002	*C-2
IC4006	*C-3	TP4003	*C-2
IC4301	*A-3	TP4004	*C-2
IC4302	*A-3	TP4005	*C-2

*:B Side mount

- Refer to page 10-40 for Printed Wiring Board
- Refer to page 10-39 for IC Block Diagrams


CN4001
96PIN
TO BM BOARD
CN304
CN4002
26P
TO C BOARD
CN5002
IC4309 BA12T
IC4301 PC74HC32D-T OR
IC4302 PC74HC32D-T OR
IC4303 PC74HC32D-T OR
IC4304 PC74HC14D-T SC INVERTER
IC4305 PC74HC08D-T AND
IC4306 M54544ALAF MOTOR DRIVE
IC4307 M54544ALAF MOTOR DRIVE
IC4308 M54544ALAF MOTOR DRIVE
IC4501
IC4003 L7809CV
IC4002 TDA7315D01PROC
IC4004 LM358 VAR-OUT
IC4006 TDA2009A AUDIO-AMP
CN4003 4P RED :S-MICRO
Q4001 DTC144EKA MUTE SW
Q4002 DTA144EKA MUTE SW
Q4003 2SA1162
Q4005 2SA1162
Q4006 2SA3326N
Q4007 2SC2712 SW
Q4008 2SA3326N
Q4009 2SA1162
Q4010 2SC3326N MUTE
Q4011 2SC3326N MUTE
AUDIO L OUT
AUDIO R OUT
ZOOM+ (M)
ZOOM- (M)
FOCUS+ (M)
FOCUS- (M)
SHIFT+ (M)
SHIFT- (M)
SUB5V
13.5V
17V
6.2V
5.2V
BC
(AUDIO AMP, MOTOR DRIVE)
no mark:Video
B-SS1710<...>-BC

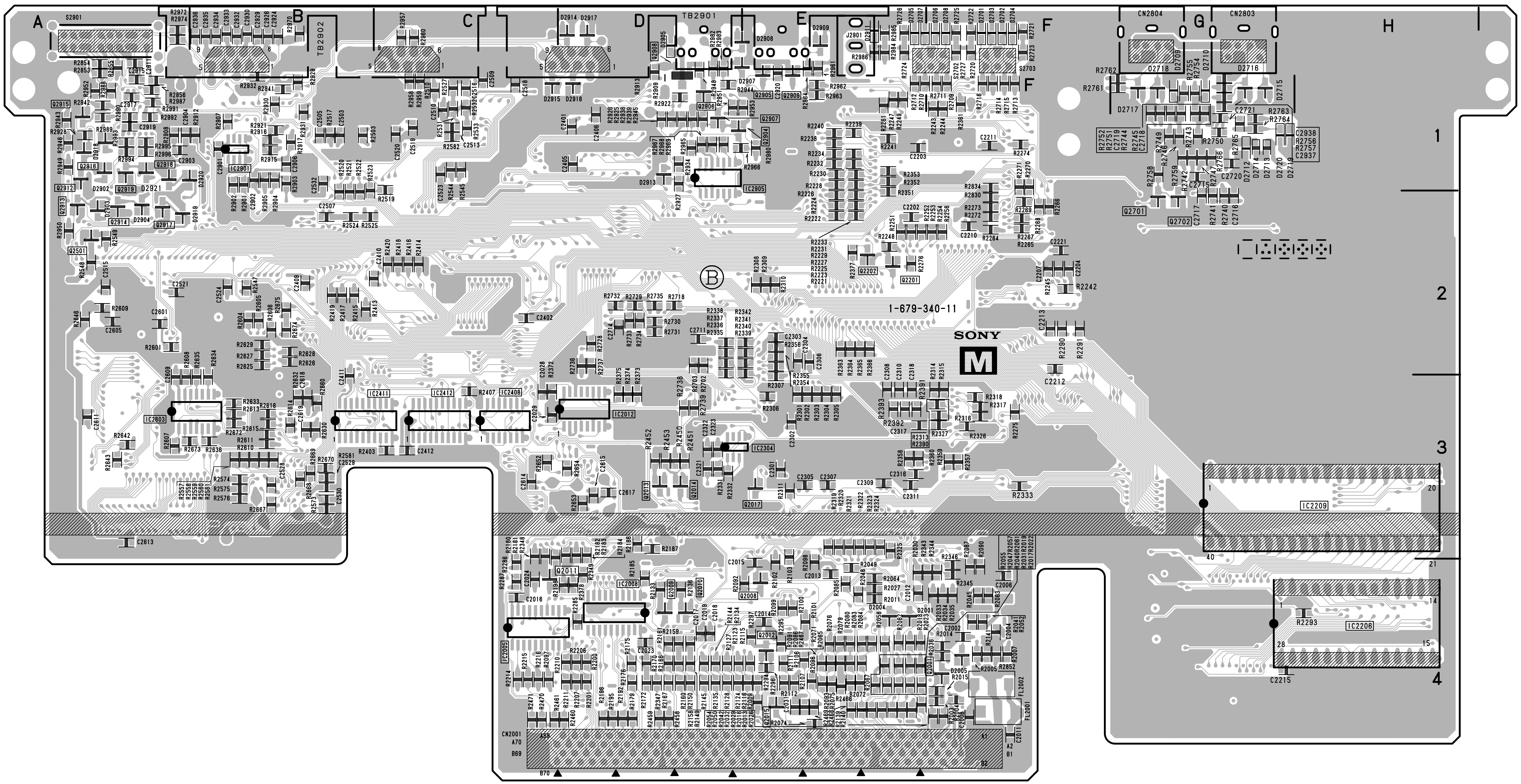
1

2

3

4

5



M – B SIDE –

SUFFIX ; -11

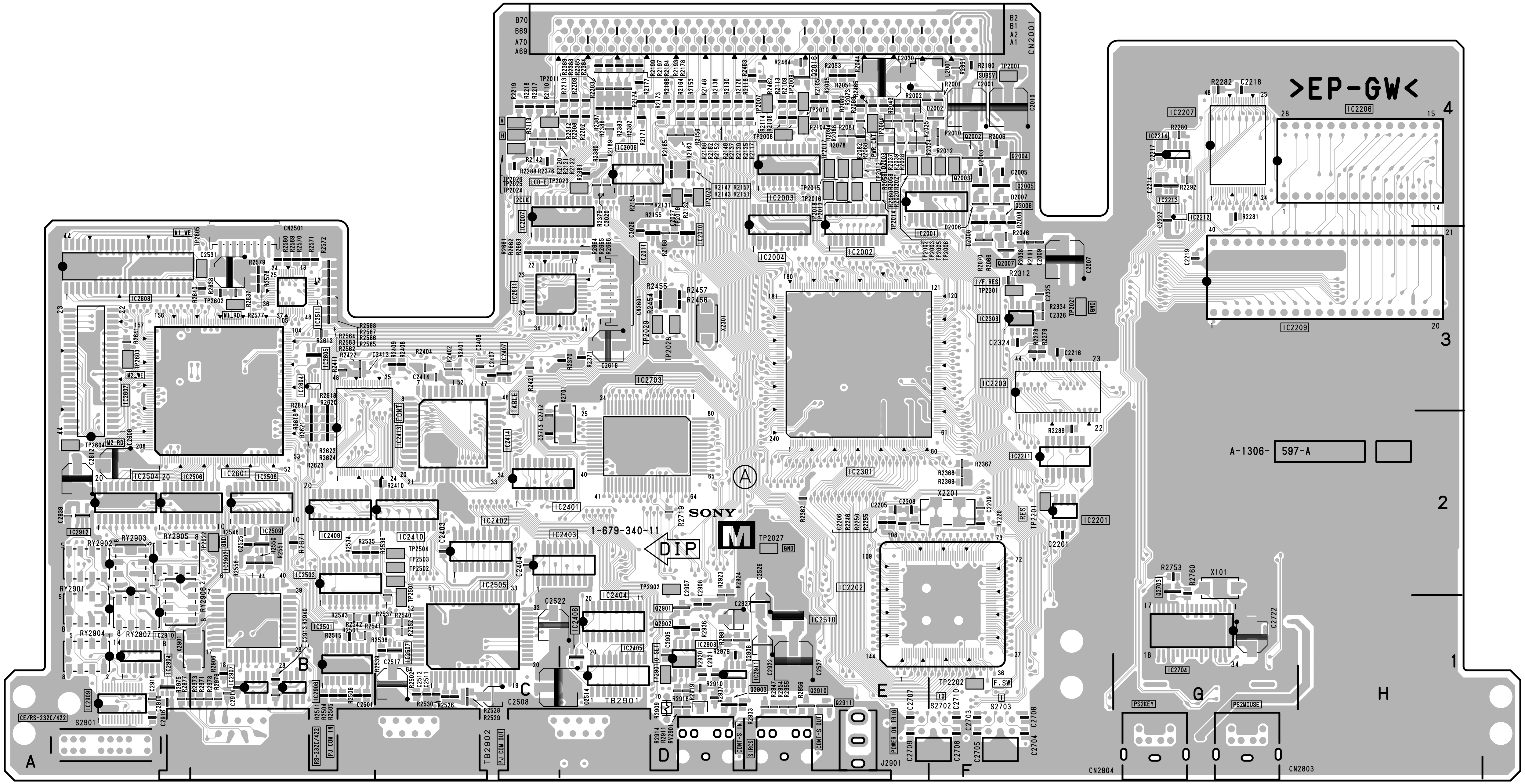
M

1-679-340-11

IC2005	C-5
IC2008	D-4
IC2012	D-3
IC2304	E-3
IC2408	C-3
IC2411	B-3
IC2412	C-3
IC2603	B-3
IC2901	B-1
IC2905	D-1
Q2001	F-4
Q2008	E-4
Q2009	D-4
Q2010	D-4
Q2011	C-4
Q2012	E-4
Q2201	E-2
Q2202	E-2
Q2904	D-1
Q2905	E-1
Q2906	D-1
Q2907	D-1
Q2908	D-1
Q2909	E-1
Q2912	A-2
Q2913	A-2
Q2914	A-1
Q2915	A-1

A B C D E F G H

http://getMANUAL.com


>EP-GW<
CN2001
B70
B69
A70
A69
B2
B1
A2
A1
IC2206
IC2207
IC2209
IC2203
IC2211
IC2201
IC2202
IC2301
IC2510
IC2703
IC2401
IC2402
IC2403
IC2404
IC2405
IC2406
IC2601
IC2608
IC2504
IC2506
IC2508
IC2509
IC2505
IC2501
IC2704
CN2501
A-1306-597-A
1-679-340-11
SONY
M
DIP
TP2027
GND
X2201
X101
X2301
S2901
CE/RS-232C/422
RS-232C/422
PJ COM IN
TB2902
PJ COM OUT
TB2901
CONT-S IN
CONT-S OUT
SIRCS
POWER ON TRIG
J2901
S2702
S2703
F.SW
PS2KEY
PS2MOUSE
CN2804
CN2803
A
B
C
D
E
F
G
H
1
2
3
4

M

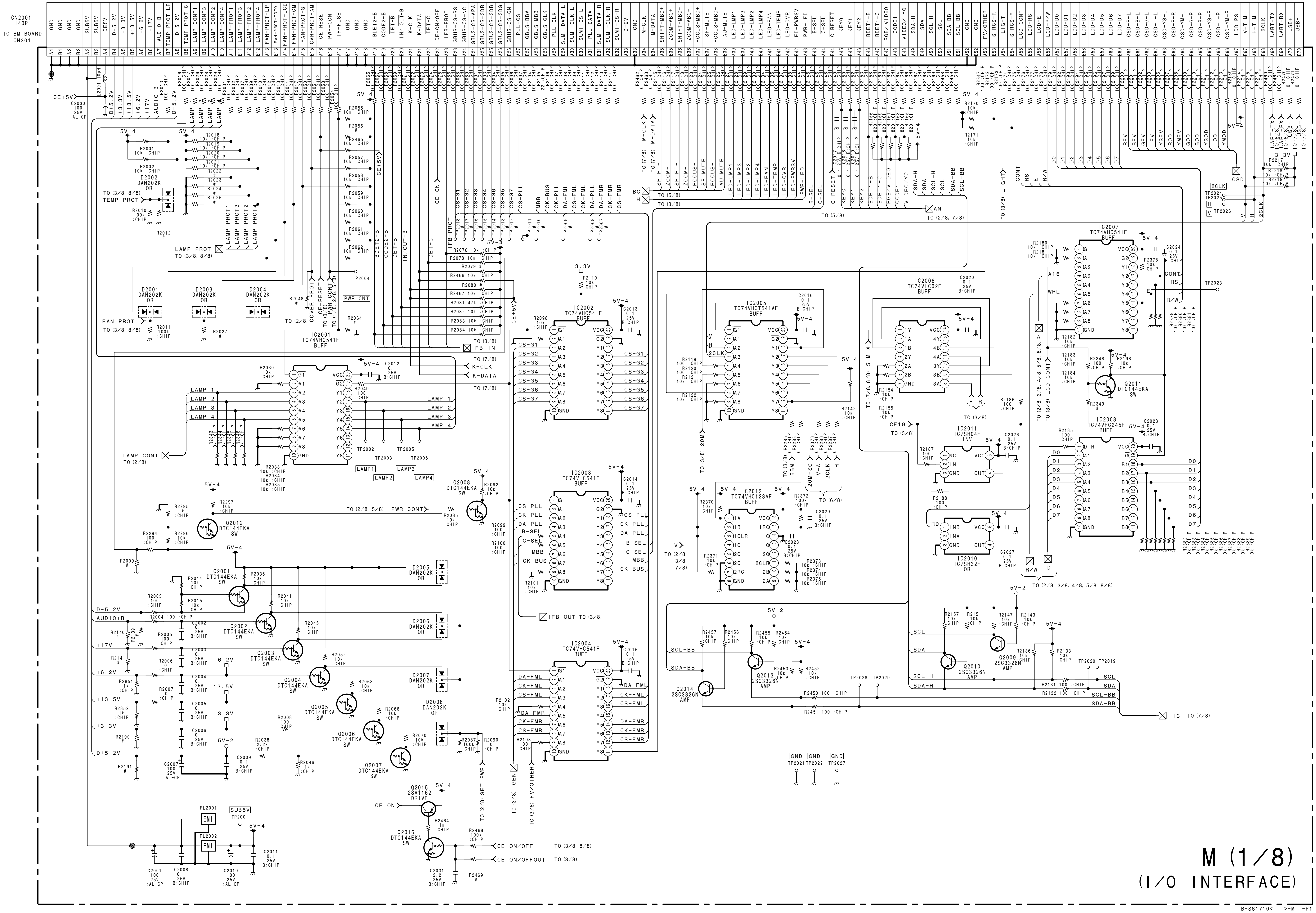
1-679-340-11

IC2001	E-3	IC2301	E-2	IC2507	C-1	IC2910	A-1	TP2003	F-3	TP2021	F-3	TP2901	D-1
IC2002	E-3	IC2303	F-3	IC2508	B-2	IC2911	E-1	TP2004	E-4	TP2022	B-2	TP2902	D-2
IC2003	E-4	IC2401	D-2	IC2509	B-2			TP2005	F-3	TP2023	D-4		
IC2004	E-3	IC2402	C-2	IC2510	E-1	Q2002	F-4	TP2006	F-3	TP2024	C-4	RV2901	D-1
IC2006	D-4	IC2403	D-2	IC2511	B-3	Q2003	F-4	TP2007	E-4	TP2025	C-4		
IC2007	C-4	IC2404	D-1	IC2601	B-2	Q2004	F-4	TP2008	E-4	TP2026	C-4		
IC2010	D-3	IC2405	D-1	IC2604	B-3	Q2005	F-4	TP2009	E-4	TP2027	E-2		
IC2011	D-3	IC2406	D-1	IC2605	B-3	Q2006	F-4	TP2010	E-4	TP2201	F-2		
IC2201	F-2	IC2407	C-3	IC2607	A-3	Q2007	F-3	TP2011	C-4	TP2202	F-1		
IC2202	F-1	IC2409	B-2	IC2608	A-3	Q2501	A-2	TP2012	E-4	TP2301	F-3		
IC2203	F-3	IC2410	C-2	IC2611	C-3	Q2901	D-1	TP2013	E-4	TP2501	C-2		
IC2206	H-4	IC2413	C-2	IC2703	D-3	Q2902	D-2	TP2014	E-4	TP2502	C-2		
IC2207	G-4	IC2414	C-2	IC2902	B-1	Q2903	E-1	TP2015	E-4	TP2503	C-2		
IC2209	H-3	IC2501	B-1	IC2903	D-1	Q2910	E-1	TP2016	E-4	TP2504	C-2		
IC2211	F-2	IC2503	B-2	IC2904	A-1	Q2911	E-1	TP2017	E-4	TP2602	B-3		
IC2212	G-4	IC2504	A-2	IC2906	B-1			TP2018	E-4	TP2603	A-3		
IC2213	G-4	IC2505	C-2	IC2907	B-1	TP2001	F-4	TP2019	D-4	TP2604	A-2		
IC2214	G-4	IC2506	B-2	IC2909	A-1	TP2002	F-3	TP2020	D-4	TP2605	B-3		

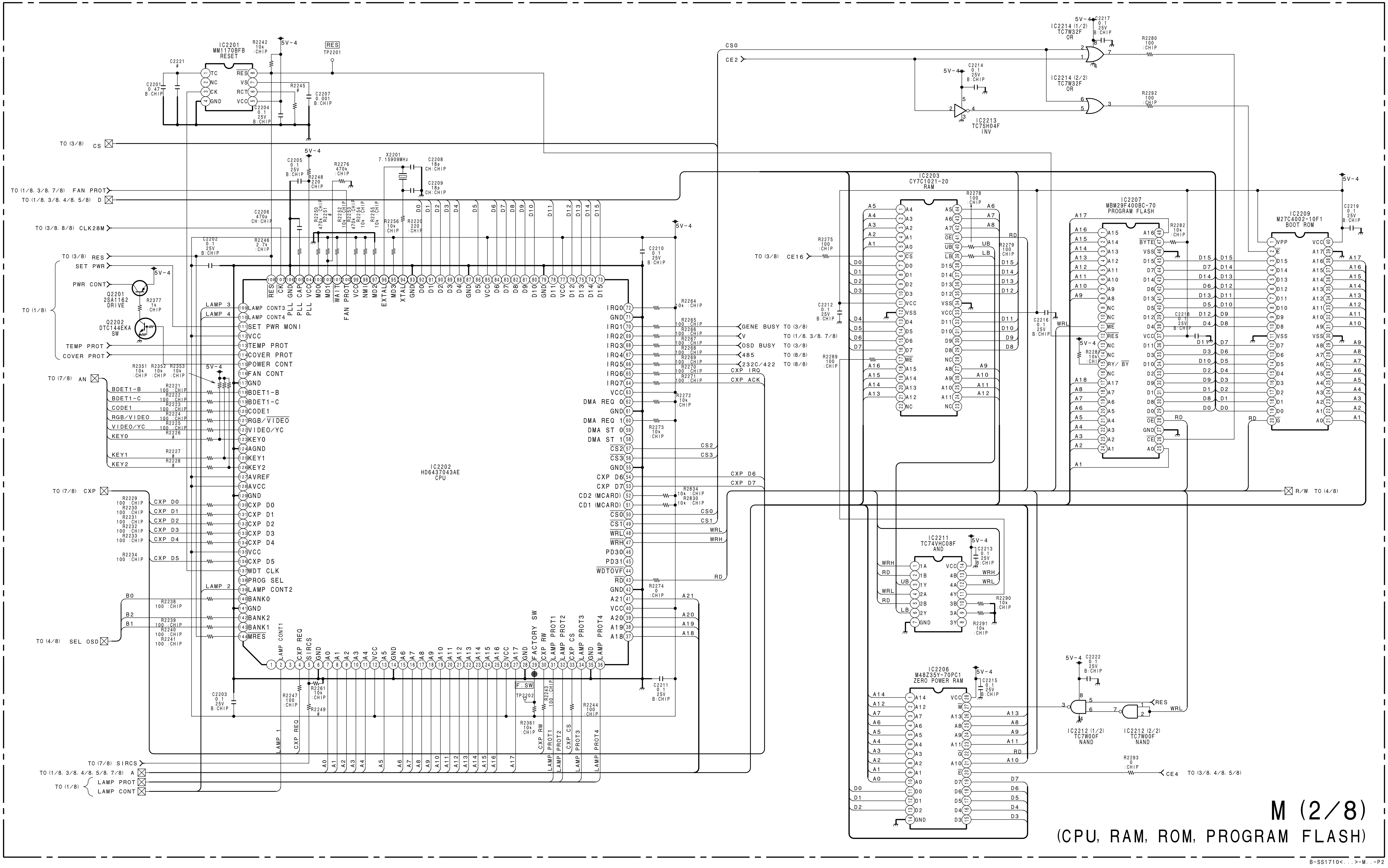
M – A SIDE –

SUFFIX ; -11

- Refer to page 10-42, 10-43 for Printed Wiring Board
- Refer to page 10-52 for IC Block Diagrms


CN2001
140P
TO BM BOARD
CN301
IC2001 TC74VHC541F BUFF
IC2002 TC74VHC541F BUFF
IC2003 TC74VHC541F BUFF
IC2004 TC74VHC541F BUFF
IC2005 TC74VHCT541AF BUFF
IC2006 TC74VHC02F BUFF
IC2007 TC74VHC541F BUFF
IC2008 TC74VHC245F BUFF
IC2010 TC7SH32F OR
IC2011 TC7SH04F INV
IC2012 TC74VHC123AF BUFF
Q2001 DTC144EKA SW
Q2002 DTC144EKA SW
Q2003 DTC144EKA SW
Q2004 DTC144EKA SW
Q2005 DTC144EKA SW
Q2006 DTC144EKA SW
Q2007 DTC144EKA SW
Q2008 DTC144EKA SW
Q2009 2SC3326N AMP
Q2010 2SC3326N AMP
Q2011 DTC144EKA SW
Q2012 DTC144EKA SW
Q2013 2SC3326N AMP
Q2014 2SC3326N AMP
Q2015 2SA1162 DRIVE
Q2016 DTC144EKA SW
D2001 DAN202K OR
D2002 DAN202K OR
D2003 DAN202K OR
D2004 DAN202K OR
D2005 DAN202K OR
D2006 DAN202K OR
D2007 DAN202K OR
D2008 DAN202K OR
FL2001 EMI
FL2002 EMI
TEMP PROT TO (3/8, 8/8)
LAMP PROT TO (3/8, 8/8)
FAN PROT TO (3/8, 8/8)
LAMP CONT TO (2/8)
PWR CONT TO (2/8, 5/8)
IFB IN TO (3/8)
IFB OUT TO (3/8)
CE ON/OFF TO (3/8, 8/8)
CE ON/OFFOUT TO (3/8)
IIC TO (7/8)
M (1/8)
(I/O INTERFACE)
B-SS1710<...>-M..-P1
1
2
3
4
5
A
B
C
D
E
F
G
H

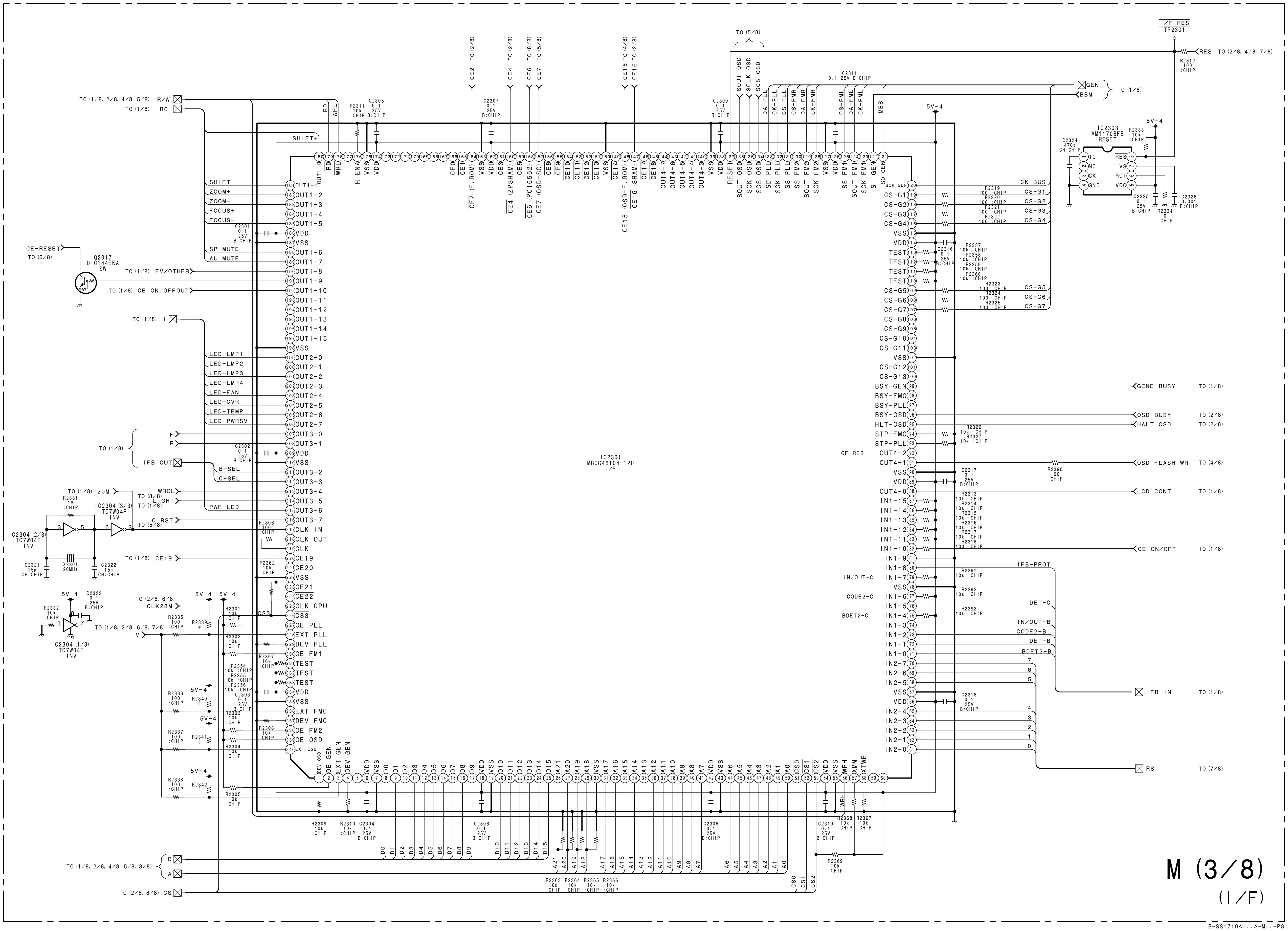
- Refer to page 10-42, 10-43 for Printed Wiring Board
- Refer to page 10-52 for IC Block Diagrms


IC2201 MM1170BFB RESET
IC2202 HD6437043AE CPU
IC2203 CY7C1021-20 RAM
IC2207 MBM29F400BC-70 PROGRAM FLASH
IC2209 M27C4002-10F1 BOOT ROM
IC2211 TC74VHC08F AND
IC2206 M48Z35Y-70PC1 ZERO POWER RAM
IC2214 (1/2) TC7W32F OR
IC2214 (2/2) TC7W32F OR
IC2213 TC7SH04F INV
IC2212 (1/2) TC7W00F NAND
IC2212 (2/2) TC7W00F NAND
Q2201 2SA1162 DRIVE
Q2202 DTC144EKA SW
X2201 7.15909MHz
RES TP2201
F.SW TP2202
5V-4
TO (3/8) CS
TO (1/8, 3/8, 7/8) FAN PROT
TO (1/8, 3/8, 4/8, 5/8) D
TO (3/8, 8/8) CLK28M
TO (3/8) RES
SET PWR
PWR CONT
TO (1/8)
TEMP PROT
COVER PROT
TO (7/8) AN
TO (7/8) CXP
TO (4/8) SEL OSD
TO (7/8) SIRCS
TO (1/8, 3/8, 4/8, 5/8, 7/8) A
TO (1/8) LAMP PROT
LAMP CONT
GENE BUSY TO (3/8)
V TO (1/8, 3/8, 7/8)
OSD BUSY TO (3/8)
485 TO (8/8)
232C/422 TO (8/8)
CXP IRQ
CXP ACK
TO (3/8) CE16
R/W TO (4/8)
CE4 TO (3/8, 4/8, 5/8)
CS0
CE2
M (2/8)
(CPU, RAM, ROM, PROGRAM FLASH)
B-SS1710<...>-M..-P2

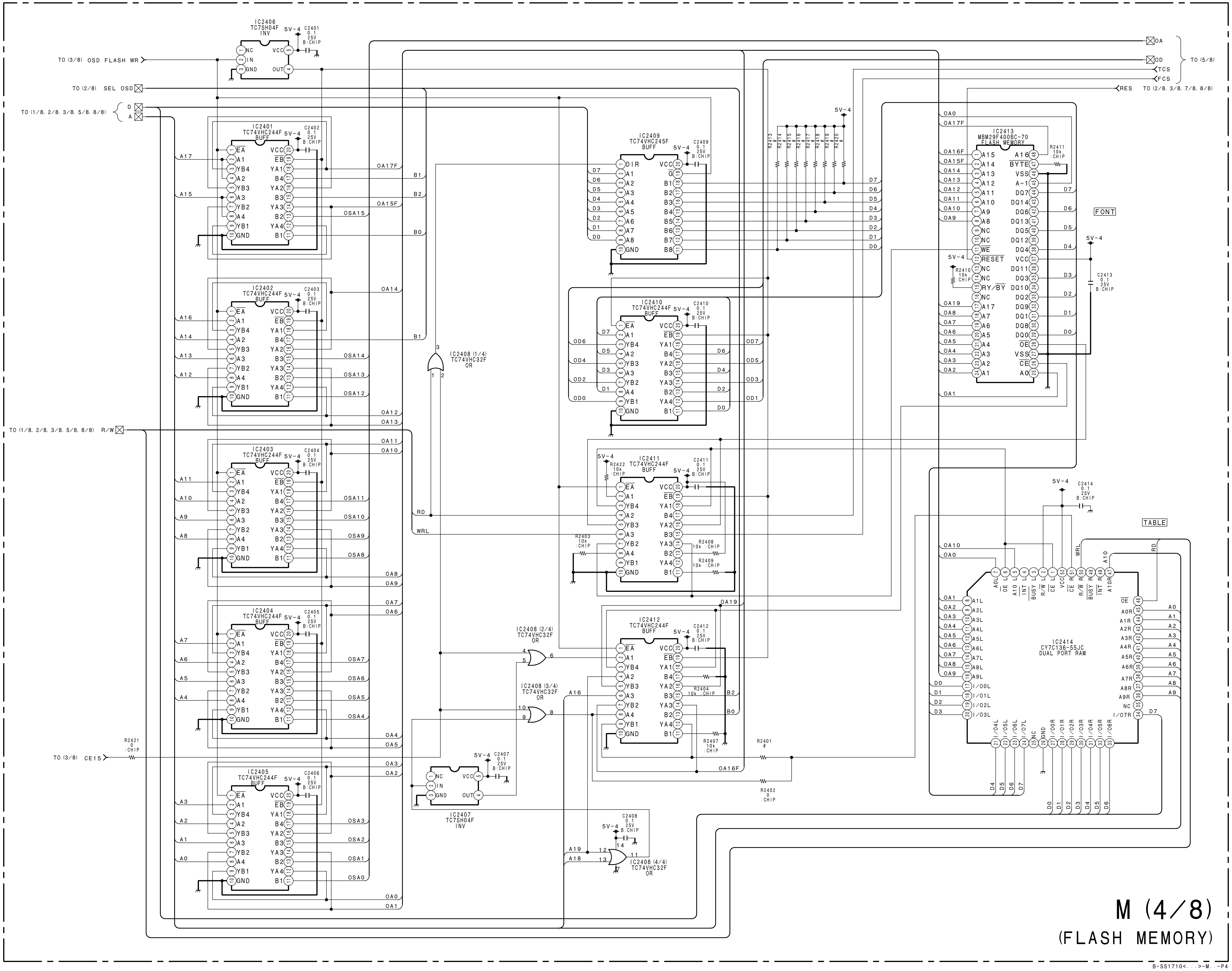
1
2
3
4
5

A B C D E F G H

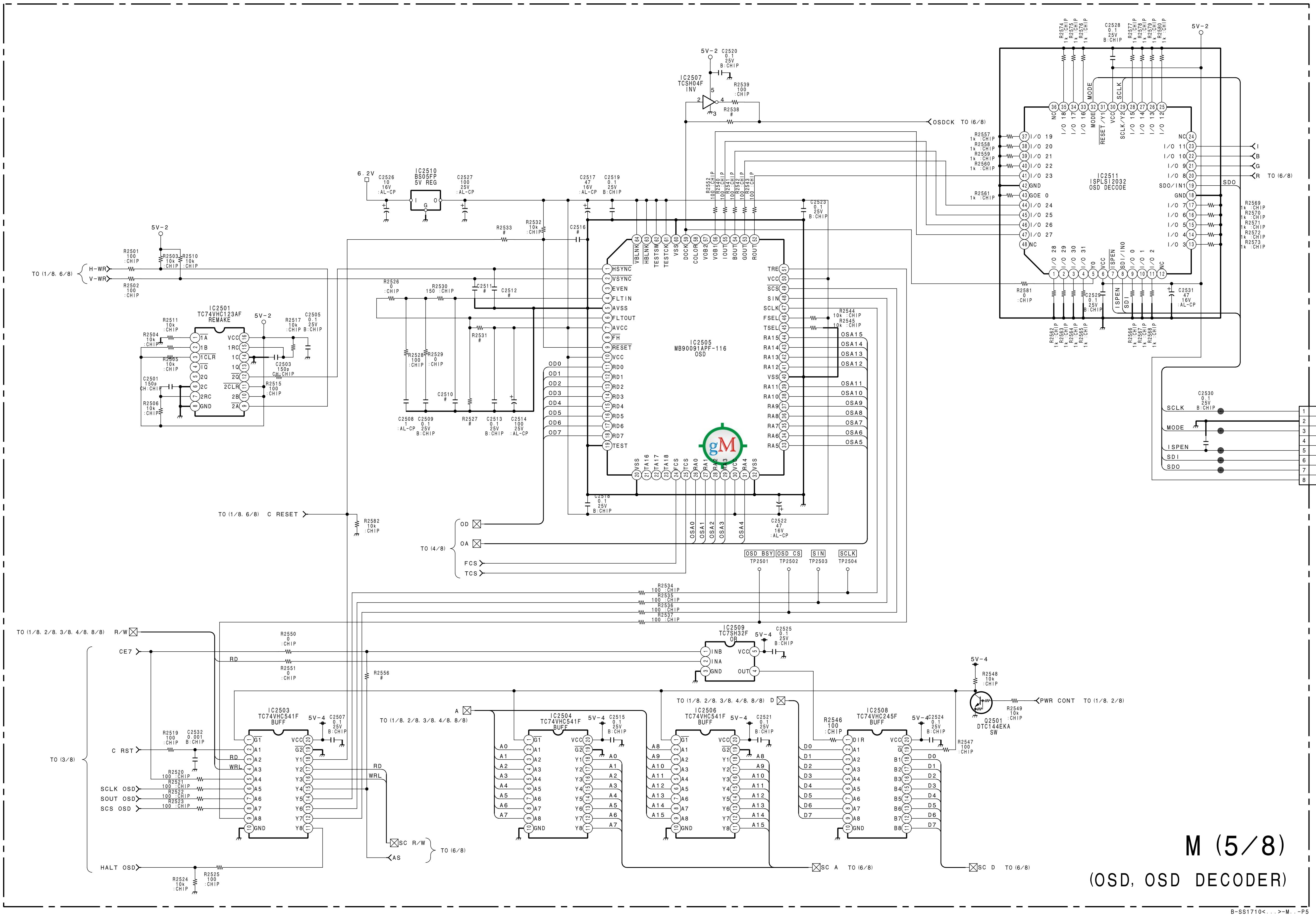
- Refer to page 10-42, 10-43 for Printed Wiring Board
- Refer to page 10-52 for IC Block Diagrms


IC2301
MBCG46104-120
I/F
IC2303
MM1170BFB
RESET
IC2304 (1/3)
TC7W04F
INV
IC2304 (2/3)
TC7W04F
INV
IC2304 (3/3)
TC7W04F
INV
Q2017
DTC144EKA
SW
X2301
20MHz
I/F RES
TP2301
RES TO (2/8, 4/8, 7/8)
GEN
BBM
TO (1/8)
TO (5/8)
5V-4
TO (1/8, 2/8, 4/8, 5/8) R/W
TO (1/8) BC
SHIFT+
SHIFT-
ZOOM+
ZOOM-
FOCUS+
FOCUS-
SP MUTE
AU MUTE
CE-RESET
TO (6/8)
TO (1/8) FV/OTHER
TO (1/8) CE ON/OFFOUT
TO (1/8) H
LED-LMP1
LED-LMP2
LED-LMP3
LED-LMP4
LED-FAN
LED-CVR
LED-TEMP
LED-PWRSV
F
R
IFB OUT
B-SEL
C-SEL
PWR-LED
WRCL
LIGHT
C RST
TO (1/8) 20M
TO (1/8) CE19
TO (2/8, 6/8) CLK28M
TO (1/8, 2/8, 6/8, 7/8) V
CK-BUS
CS-G1
CS-G2
CS-G3
CS-G4
CS-G5
CS-G6
CS-G7
GENE BUSY TO (1/8)
OSD BUSY TO (2/8)
HALT OSD TO (2/8)
OSD FLASH WR TO (4/8)
LCD CONT TO (1/8)
CE ON/OFF TO (1/8)
IFB-PROT
DET-C
IN/OUT-B
CODE2-B
DET-B
BDET2-B
IN/OUT-C
CODE2-C
BDET2-C
CF RES
IFB IN TO (1/8)
RS TO (7/8)
TO (1/8, 2/8, 4/8, 5/8, 8/8) D
A
TO (2/8, 8/8) CS
CE2 TO (2/8)
CE4 TO (2/8)
CE6 TO (8/8)
CE7 TO (5/8)
CE15 TO (4/8)
CE16 TO (2/8)
M (3/8)
(I/F)
B-SS1710<...>-M..-P3

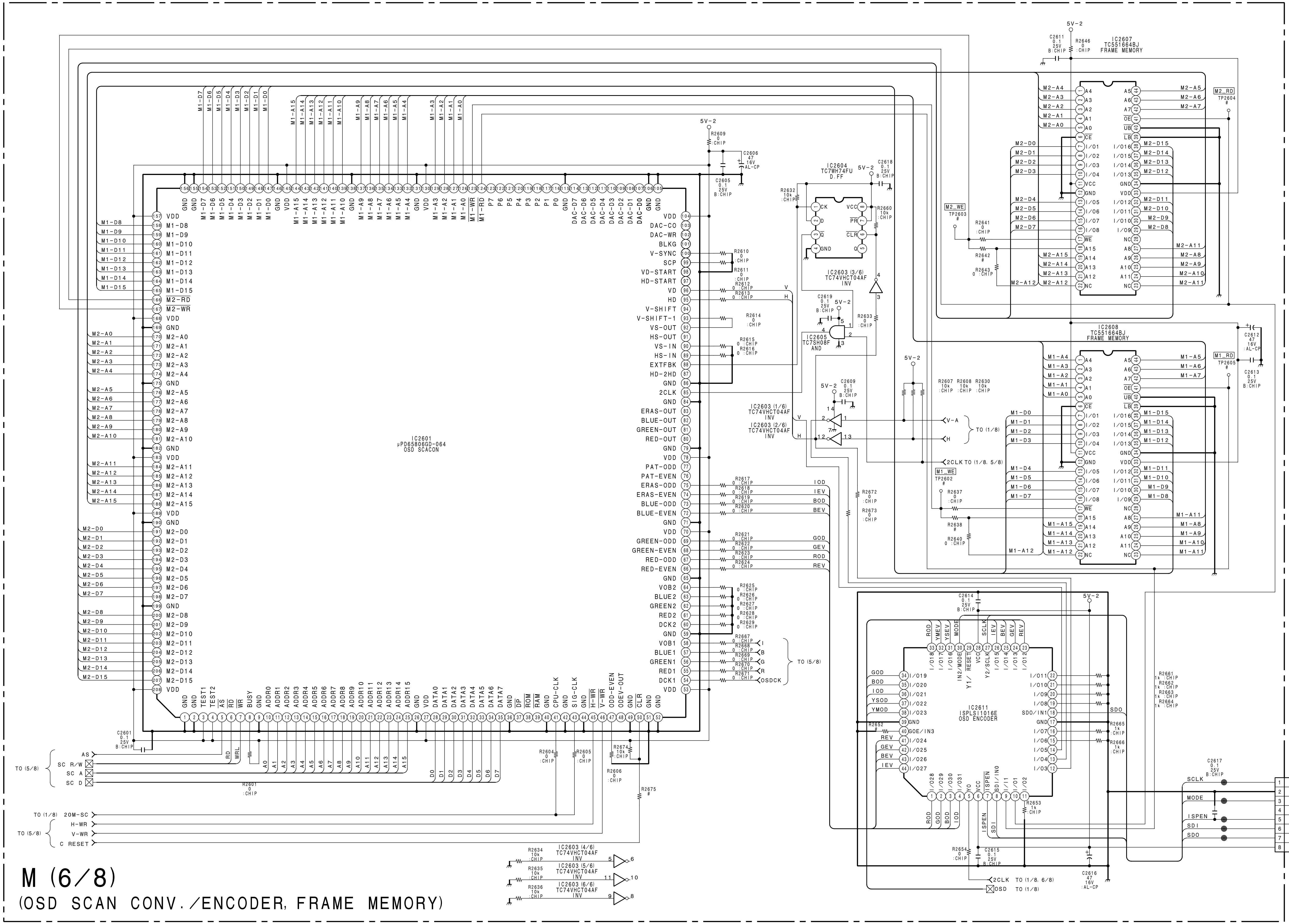
- Refer to page 10-42, 10-43 for Printed Wiring Board
- Refer to page 10-52 for IC Block Diagrms


IC2406 TC7SH04F INV
IC2401 TC74VHC244F BUFF
IC2402 TC74VHC244F BUFF
IC2403 TC74VHC244F BUFF
IC2404 TC74VHC244F BUFF
IC2405 TC74VHC244F BUFF
IC2407 TC7SH04F INV
IC2408 (1/4) TC74VHC32F OR
IC2408 (2/4) TC74VHC32F OR
IC2408 (3/4) TC74VHC32F OR
IC2408 (4/4) TC74VHC32F OR
IC2409 TC74VHC245F BUFF
IC2410 TC74VHC244F BUFF
IC2411 TC74VHC244F BUFF
IC2412 TC74VHC244F BUFF
IC2413 MBM29F400BC-70 FLASH MEMORY
IC2414 CY7C136-55JC DUAL PORT RAM
TO (3/8) OSD FLASH WR
TO (2/8) SEL OSD
TO (1/8, 2/8, 3/8, 5/8, 8/8) D A
TO (1/8, 2/8, 3/8, 5/8, 8/8) R/W
TO (3/8) CE15
TO (5/8) OA OD TCS FCS
RES TO (2/8, 3/8, 7/8, 8/8)
FONT
TABLE
5V-4
M (4/8)
(FLASH MEMORY)
B-SS1710<...>-M..-P4

- Refer to page 10-42, 10-43 for Printed Wiring Board
- Refer to page 10-52 for IC Block Diagrms

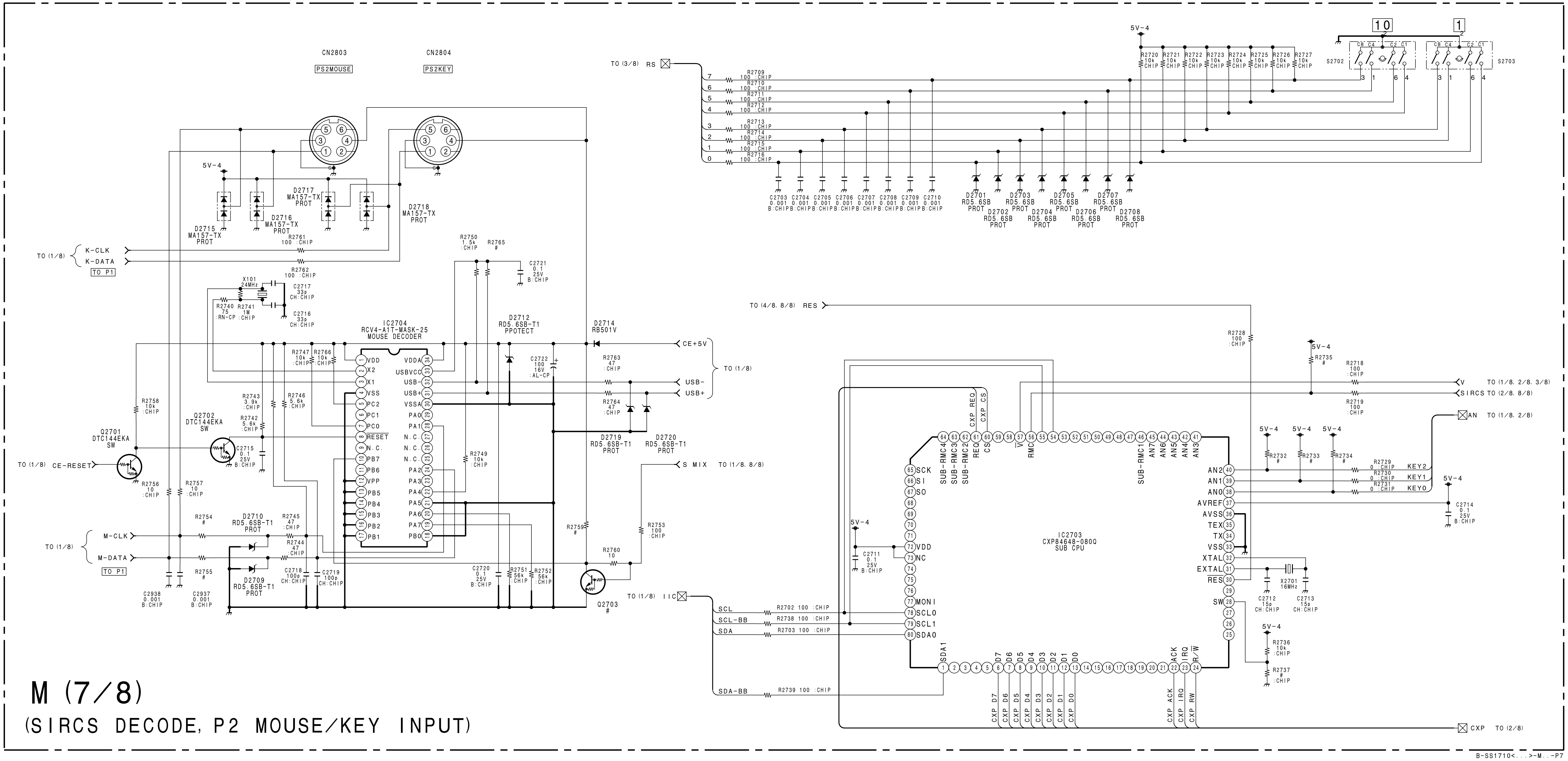

IC2505
MB90091APF-116
OSD
IC2511
ISPLSI2032
OSD DECODE
IC2501
TC74VHC123AF
REMAKE
IC2507
TCSH04F
INV
IC2510
BS05FP
5V REG
IC2509
TC7SH32F
OR
IC2503
TC74VHC541F
BUFF
IC2504
TC74VHC541F
BUFF
IC2506
TC74VHC541F
BUFF
IC2508
TC74VHC245F
BUFF
Q2501
DTC144EKA
SW
CN2501
8P
WHT
:SMD
SCLK
GND
MODE
PLUG
ISPEN
SDI
SDO
VCC
TO (1/8, 6/8)
H-WR
V-WR
OSDCK TO (6/8)
TO (6/8)
TO (4/8)
TO (3/8)
TO (1/8, 2/8, 3/8, 4/8, 8/8)
PWR CONT TO (1/8, 2/8)
SC R/W
SC A
SC D
OSD BSY
OSD CS
SIN
SCLK
TP2501
TP2502
TP2503
TP2504
M (5/8)
(OSD, OSD DECODER)
B-SS1710<...>-M..-P5

- Refer to page 10-42, 10-43 for Printed Wiring Board
- Refer to page 10-52 for IC Block Diagrms


IC2601
μPD65806GD-064
OSD SCACON
IC2607
TC551664BJ
FRAME MEMORY
IC2608
TC551664BJ
FRAME MEMORY
IC2604
TC7WH74FU
D.FF
IC2603 (3/6)
TC74VHCT04AF
INV
IC2605
TC7SH08F
AND
IC2603 (1/6)
TC74VHCT04AF
INV
IC2603 (2/6)
TC74VHCT04AF
INV
IC2611
ISPLSI1016E
OSD ENCODER
IC2603 (4/6)
TC74VHCT04AF
INV
IC2603 (5/6)
TC74VHCT04AF
INV
IC2603 (6/6)
TC74VHCT04AF
INV
CN2601
8P
WHT
:SMD
SCLK
GND
MODE
PLUG
ISPEN
SDI
SDO
VCC
5V-2
TO (5/8)
TO (1/8)
2CLK TO (1/8, 5/8)
2CLK TO (1/8, 6/8)
OSD TO (1/8)
V-A
H
AS
SC R/W
SC A
SC D
20M-SC
H-WR
V-WR
C RESET
OSDCK
M2_RD
M2_WE
M1_RD
M1_WE
B-SS1710<...>-M..-P6

M (6/8)
(OSD SCAN CONV./ENCODER, FRAME MEMORY)

- Refer to page 10-42, 10-43 for Printed Wiring Board
- Refer to page 10-52 for IC Block Diagrms

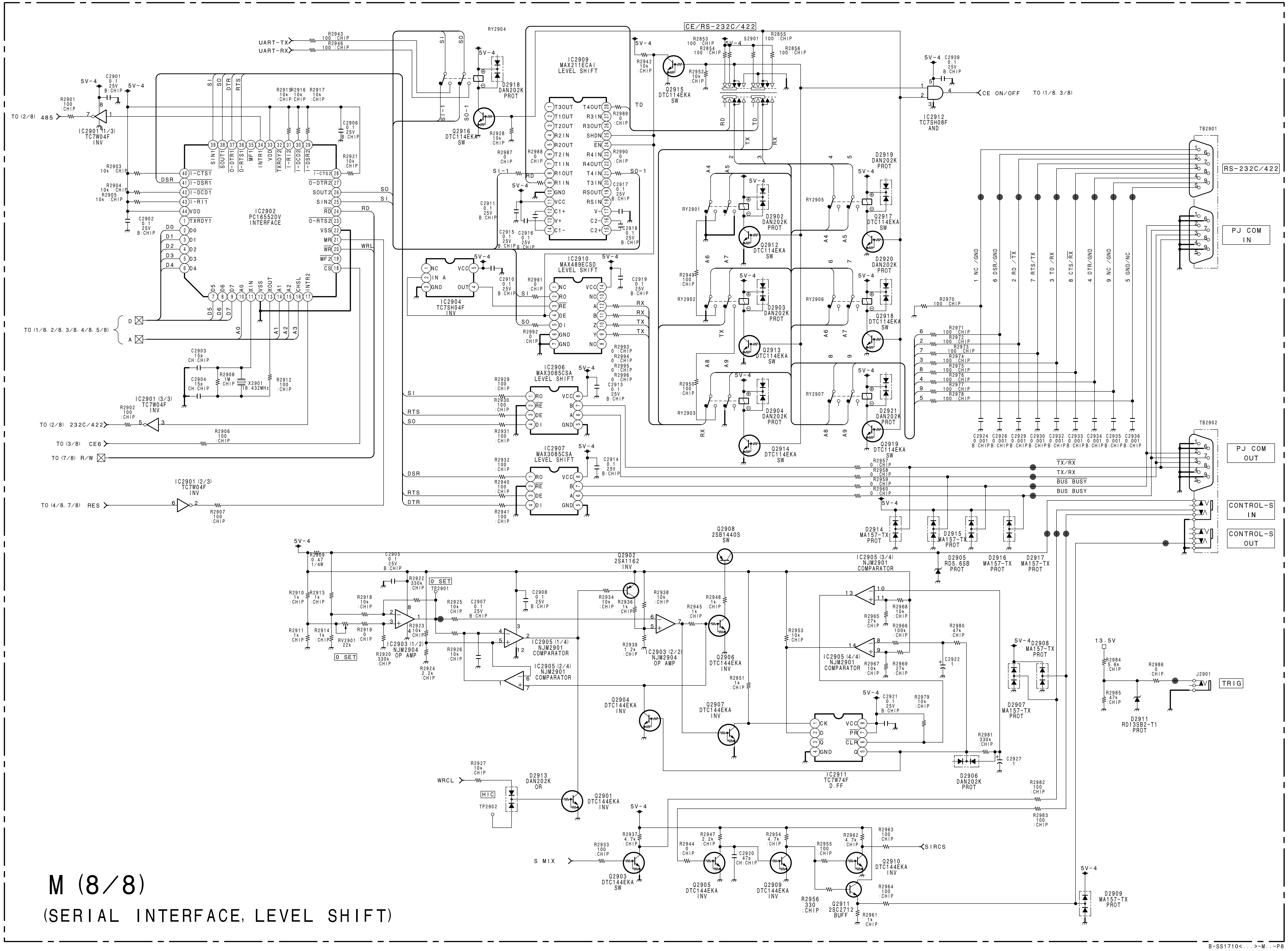

CN2803
PS2MOUSE
CN2804
PS2KEY
5V-4
D2715 MA157-TX PROT
D2716 MA157-TX PROT
D2717 MA157-TX PROT
D2718 MA157-TX PROT
TO (1/8) K-CLK
K-DATA
TO P1
R2761 100 :CHIP
R2762 100 :CHIP
X101 24MHz
C2717 33p CH:CHIP
C2716 33p CH:CHIP
R2740 75 :RN-CP
R2741 1M :CHIP
IC2704 RCV4-A1T-MASK-25 MOUSE DECODER
VDD X2 X1 VSS PC2 PC1 PC0 RESET N.C. PB7 VPP PB6 PB5 PB4 PB3 PB2 PB1
VDDA USBVCC USB- USB+ VSSA PA0 PA1 N.C. N.C. N.C. PA2 PA3 PA4 PA5 PA6 PA7 PB0
R2747 10k :CHIP
R2766 10k :CHIP
R2750 1.5k :CHIP
R2765 #
C2721 0.1 25V B:CHIP
D2712 RD5.6SB-T1 PPOTECT
C2722 100 16V AL-CP
D2714 RB501V
CE+5V
USB-
USB+
TO (1/8)
R2763 47 :CHIP
R2764 47 :CHIP
D2719 RD5.6SB-T1 PROT
D2720 RD5.6SB-T1 PROT
S MIX TO (1/8, 8/8)
R2758 10k :CHIP
Q2701 DTC144EKA SW
TO (1/8) CE-RESET
Q2702 DTC144EKA SW
R2743 3.9k :CHIP
R2746 5.6k :CHIP
R2742 5.6k :CHIP
C2715 0.1 25V B:CHIP
R2756 10 :CHIP
R2757 10 :CHIP
R2749 10k :CHIP
TO (1/8) M-CLK
M-DATA
TO P1
R2754 #
R2755 #
D2710 RD5.6SB-T1 PROT
D2709 RD5.6SB-T1 PROT
R2745 47 :CHIP
R2744 47 :CHIP
C2718 100p CH:CHIP
C2719 100p CH:CHIP
C2938 0.001 B:CHIP
C2937 0.001 B:CHIP
C2720 0.1 25V B:CHIP
R2751 56k :CHIP
R2752 56k :CHIP
R2759 #
R2760 10
R2753 100 :CHIP
Q2703 #
TO (1/8) IIC
SCL
SCL-BB
SDA
SDA-BB
R2702 100 :CHIP
R2738 100 :CHIP
R2703 100 :CHIP
R2739 100 :CHIP
TO (3/8) RS
R2709 100 :CHIP
R2710 100 :CHIP
R2711 100 :CHIP
R2712 100 :CHIP
R2713 100 :CHIP
R2714 100 :CHIP
R2715 100 :CHIP
R2716 100 :CHIP
7 6 5 4 3 2 1 0
C2703 C2704 C2705 C2706 C2707 C2708 C2709 C2710 0.001 B:CHIP
D2701 D2702 D2703 D2704 D2705 D2706 D2707 D2708 RD5.6SB PROT
R2720 R2721 R2722 R2723 R2724 R2725 R2726 R2727 10k CHIP
10
1
S2702
S2703
TO (4/8, 8/8) RES
R2728 100 :CHIP
R2735 #
R2718 100 :CHIP
R2719 100 :CHIP
V TO (1/8, 2/8, 3/8)
SIRCS TO (2/8, 8/8)
AN TO (1/8, 2/8)
IC2703 CXP84648-080Q SUB CPU
SCK SI SO VDD NC MONI SCL0 SCL1 SDA0
SUB-RMC4 SUB-RMC3 SUB-RMC2 REQ CS V RMC SUB-RMC1 AN7 AN6 AN5 AN4 AN3
CXP REQ CXP CS
AN2 AN1 AN0 AVREF AVSS TEX TX VSS XTAL EXTAL RES SW
SDA1 D7 D6 D5 D4 D3 D2 D1 D0 ACK IRQ R/W
R2732 # R2733 # R2734 #
R2729 0 :CHIP R2730 0 :CHIP R2731 0 :CHIP
KEY2 KEY1 KEY0
C2714 0.1 25V B:CHIP
C2711 0.1 25V B:CHIP
C2712 15p CH:CHIP
C2713 15p CH:CHIP
X2701 16MHz
R2736 10k :CHIP
R2737 # :CHIP
CXP D7 CXP D6 CXP D5 CXP D4 CXP D3 CXP D2 CXP D1 CXP D0 CXP ACK CXP IRQ CXP RW
CXP TO (2/8)
B-SS1710<...>-M..-P7

M (7/8)
(SIRCS DECODE, P2 MOUSE/KEY INPUT)

1
2
3
4
5

A B C D E F G H

- Refer to page 10-50 for Printed Wiring Board
- Refer to page 10-49 for IC Block Diagrams

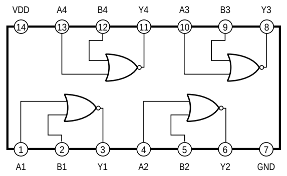

1
2
3
4
5
UART-TX
UART-RX
RY2904
CE/RS-232C/422
S2901
IC2901 (1/3)
TC7W04F
INV
TO (2/8) 485
IC2902
PC16552DV
INTERFACE
IC2909
MAX211ECAI
LEVEL SHIFT
Q2916
DTC114EKA
SW
D2918
DAN202K
PROT
Q2915
DTC114EKA
SW
IC2912
TC7SH08F
AND
CE ON/OFF
TO (1/8, 3/8)
TB2901
RS-232C/422
PJ COM
IN
TO (1/8, 2/8, 3/8, 4/8, 5/8)
X2901
18.432MHz
IC2904
TC7SH04F
INV
IC2910
MAX489ECSD
LEVEL SHIFT
RY2901
RY2902
RY2903
RY2905
RY2906
RY2907
Q2912
DTC114EKA
SW
Q2913
DTC114EKA
SW
Q2914
DTC114EKA
SW
Q2917
DTC114EKA
SW
Q2918
DTC114EKA
SW
Q2919
DTC114EKA
SW
D2902
DAN202K
PROT
D2903
DAN202K
PROT
D2904
DAN202K
PROT
D2919
DAN202K
PROT
D2920
DAN202K
PROT
D2921
DAN202K
PROT
1 NC /GND
6 DSR/GND
2 RD /TX
7 RTS/TX
3 TD /RX
8 CTS/RX
4 DTR/GND
9 NC /GND
5 GND/NC
IC2901 (3/3)
TC7W04F
INV
TO (2/8) 232C/422
TO (3/8) CE6
TO (7/8) R/W
IC2906
MAX3085CSA
LEVEL SHIFT
IC2907
MAX3085CSA
LEVEL SHIFT
IC2901 (2/3)
TC7W04F
INV
TO (4/8, 7/8) RES
TB2902
PJ COM
OUT
TX/RX
TX/RX
BUS BUSY
BUS BUSY
CONTROL-S
IN
CONTROL-S
OUT
D2914
MA157-TX
PROT
D2915
MA157-TX
PROT
D2905
RD5.6SB
PROT
D2916
MA157-TX
PROT
D2917
MA157-TX
PROT
Q2908
2SB1440S
SW
Q2902
2SA1162
INV
0 SET
TP2901
IC2903 (1/2)
NJM2904
OP AMP
IC2905 (1/4)
NJM2901
COMPARATOR
IC2905 (2/4)
NJM2901
COMPARATOR
IC2903 (2/2)
NJM2904
OP AMP
Q2906
DTC144EKA
INV
IC2905 (3/4)
NJM2901
COMPARATOR
IC2905 (4/4)
NJM2901
COMPARATOR
D2908
MA157-TX
PROT
D2907
MA157-TX
PROT
13.5V
J2901
TRIG
D2911
RD13SB2-T1
PROT
Q2904
DTC144EKA
INV
Q2907
DTC144EKA
INV
IC2911
TC7W74F
D.FF
D2906
DAN202K
PROT
WRCL
HIC
TP2902
D2913
DAN202K
OR
Q2901
DTC144EKA
INV
S MIX
Q2903
DTC144EKA
SW
Q2905
DTC144EKA
INV
Q2909
DTC144EKA
INV
Q2910
DTC144EKA
INV
SIRCS
Q2911
2SC2712
BUFF
D2909
MA157-TX
PROT
5V-4
B-SS1710<...>-M..-P8

M (8/8)

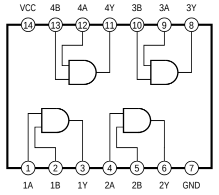
(SERIAL INTERFACE, LEVEL SHIFT)

M Board IC Block Diagrams

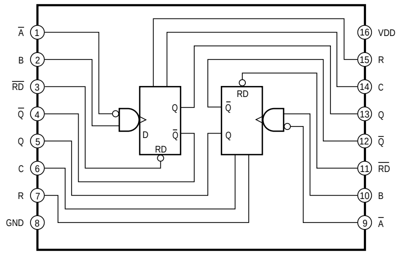
TC74VHC02F (IC2006)


VDD
A4
B4
Y4
A3
B3
Y3
14
13
12
11
10
9
8
1
2
3
4
5
6
7
A1
B1
Y1
A2
B2
Y2
GND

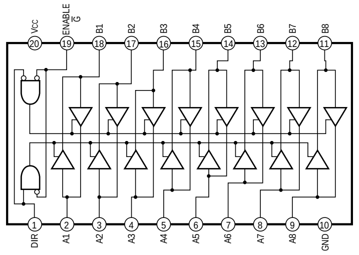
TC74VHC08F (IC2211)


VCC
4B
4A
4Y
3B
3A
3Y
14
13
12
11
10
9
8
1
2
3
4
5
6
7
1A
1B
1Y
2A
2B
2Y
GND

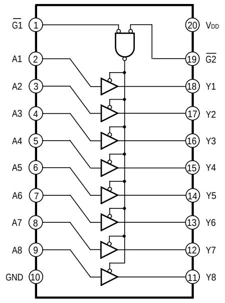
TC74VHC123AF (IC2012, 2501)


$\overline{A}$
B
$\overline{RD}$
$\overline{Q}$
Q
C
R
GND
1
2
3
4
5
6
7
8
16
15
14
13
12
11
10
9
VDD
R
C
Q
$\overline{Q}$
$\overline{RD}$
B
$\overline{A}$
Q
D
$\overline{Q}$
RD
RD
$\overline{Q}$
Q

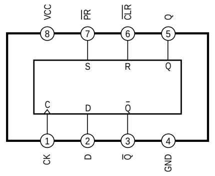
TV74VHC245F (IC2008)


VCC
ENABLE $\overline{G}$
B1
B2
B3
B4
B5
B6
B7
B8
20
19
18
17
16
15
14
13
12
11
1
2
3
4
5
6
7
8
9
10
DIR
A1
A2
A3
A4
A5
A6
A7
A8
GND

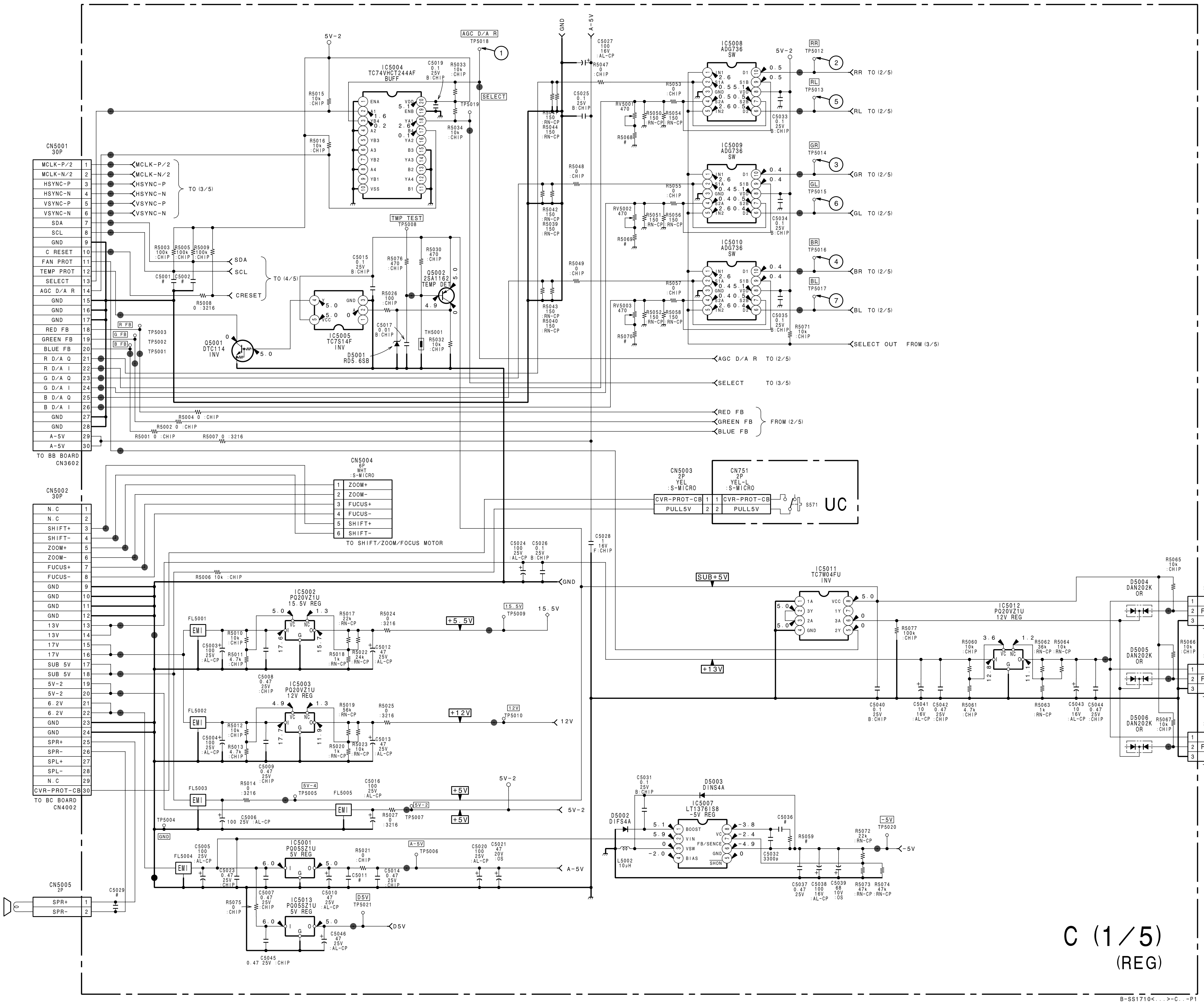
TC74VHC541F
(IC2001 – 2004, 2007, 2503, 2504, 2506, 2508)


$\overline{G1}$
A1
A2
A3
A4
A5
A6
A7
A8
GND
1
2
3
4
5
6
7
8
9
10
20
19
18
17
16
15
14
13
12
11
V_{DD}
$\overline{G2}$
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8

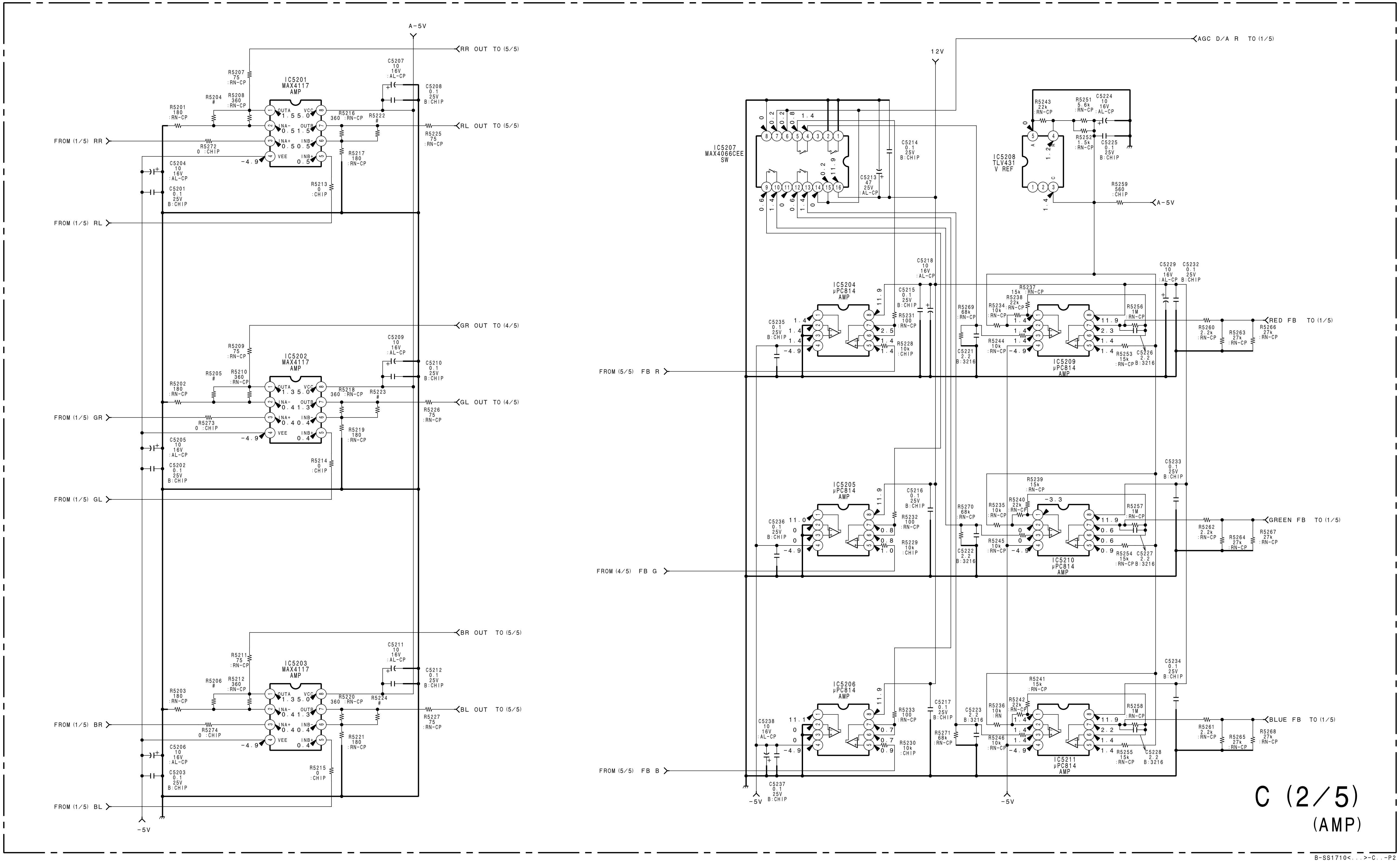
TC7W74F (IC2604)


VCC
$\overline{PR}$
$\overline{CLR}$
Q
8
7
6
5
S
R
Q
C
D
$\overline{Q}$
1
2
3
4
CK
D
$\overline{Q}$
GND

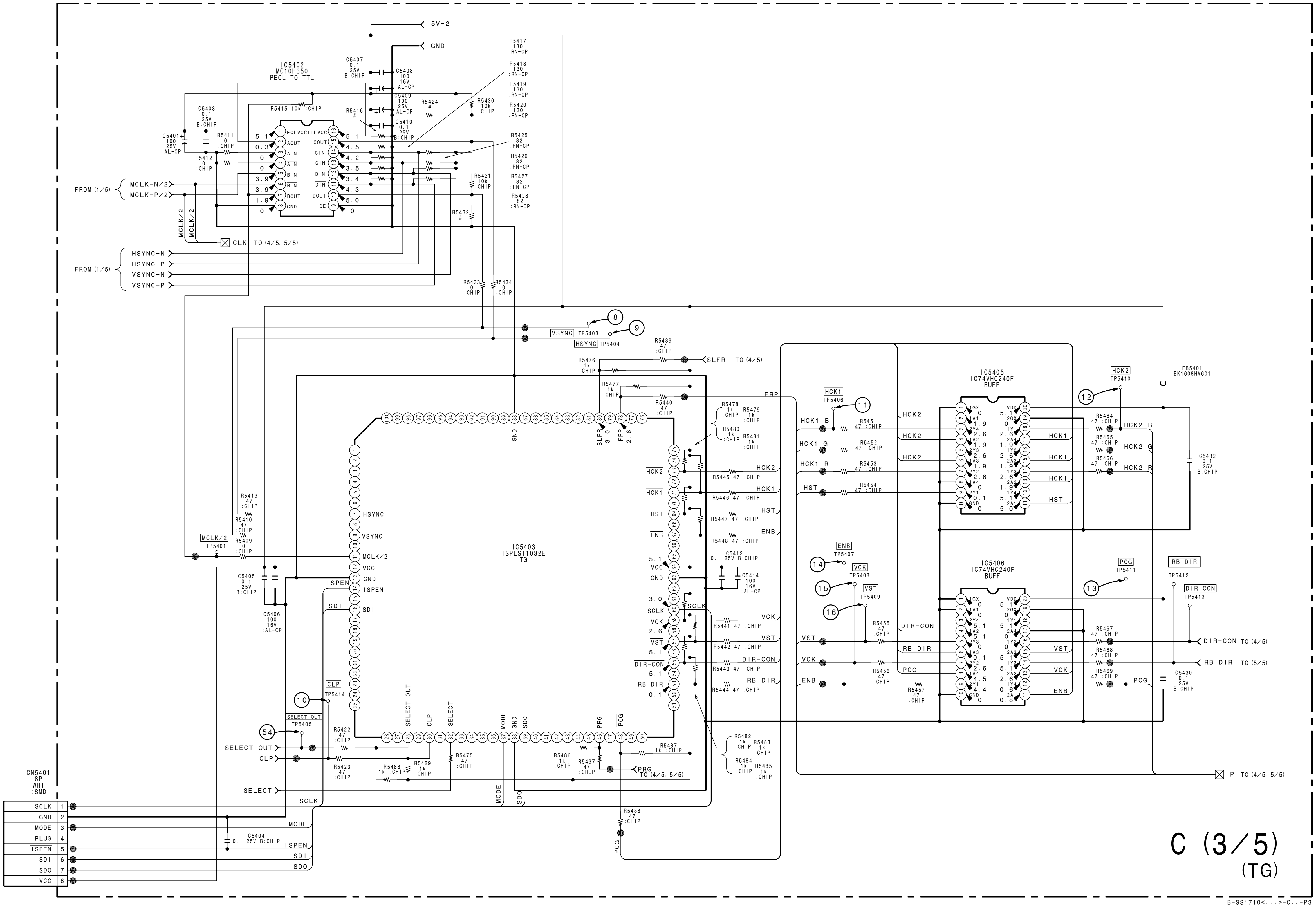
- Refer to page 10-58, 10-59 for Printed Wiring Board
- Refer to page 10-60 for Waveforms
- Refer to page 10-60 for IC Block Diagrms


CN5001 30P
MCLK-P/2
MCLK-N/2
HSYNC-P
HSYNC-N
VSYNC-P
VSYNC-N
SDA
SCL
GND
C RESET
FAN PROT
TEMP PROT
SELECT
AGC D/A R
RED FB
GREEN FB
BLUE FB
R D/A Q
R D/A I
G D/A Q
G D/A I
B D/A Q
B D/A I
A-5V
TO BB BOARD CN3602
TO (3/5)
TO (4/5)
IC5004 TC74VHCT244AF BUFF
IC5005 TC7S14F INV
Q5001 DTC114 INV
Q5002 2SA1162 TEMP DET
D5001 RD5.6SB
TH5001
TMP TEST TP5008
AGC D/A R TP5018
SELECT
IC5008 ADG736 SW
IC5009 ADG736 SW
IC5010 ADG736 SW
RR TO (2/5)
RL TO (2/5)
GR TO (2/5)
GL TO (2/5)
BR TO (2/5)
BL TO (2/5)
SELECT OUT FROM (3/5)
AGC D/A R TO (2/5)
SELECT TO (3/5)
RED FB
GREEN FB
BLUE FB
FROM (2/5)
CN5004 6P WHT S-MICRO
ZOOM+
ZOOM-
FUCUS+
FUCUS-
SHIFT+
SHIFT-
TO SHIFT/ZOOM/FOCUS MOTOR
CN5003 2P YEL S-MICRO
CN751 2P YEL-L S-MICRO
CVR-PROT-CB
PULL5V
S571
UC
CN5002 30P
N.C
13V
17V
SUB 5V
5V-2
6.2V
SPR+
SPR-
SPL+
SPL-
CVR-PROT-CB
TO BC BOARD CN4002
IC5002 PQ20VZ1U 15.5V REG
IC5003 PQ20VZ1U 12V REG
IC5001 PQ05SZ1U 5V REG
IC5013 PQ05SZ1U 5V REG
FL5001
FL5002
FL5003
FL5004
FL5005
EMI
+5.5V
+12V
+5V
15.5V
12V
5V-2
A-5V
D5V
GND
SUB+5V
+13V
IC5011 TC7W04FU INV
IC5012 PQ20VZ1U 12V REG
D5004 DAN202K OR
D5005 DAN202K OR
D5006 DAN202K OR
CN5007 3P WHT S-MICRO
CN5008 3P WHT S-MICRO
CN5009 3P WHT S-MICRO
FAN PROT1
FAN PROT2
FAN PROT3
TO FAN (B-BOX1)
TO FAN (B-BOX2)
TO FAN (B-BOX3)
IC5007 LT1376IS8 -5V REG
D5002 D1FS4A
D5003 D1NS4A
L5002 10uH
-5V TP5020
CN5005 2P
C (1/5) (REG)
B-SS1710<...>-C..-P1

- Refer to page 10-58, 10-59 for Printed Wiring Board
- Refer to page 10-60 for Waveforms
- Refer to page 10-60 for IC Block Diagrms

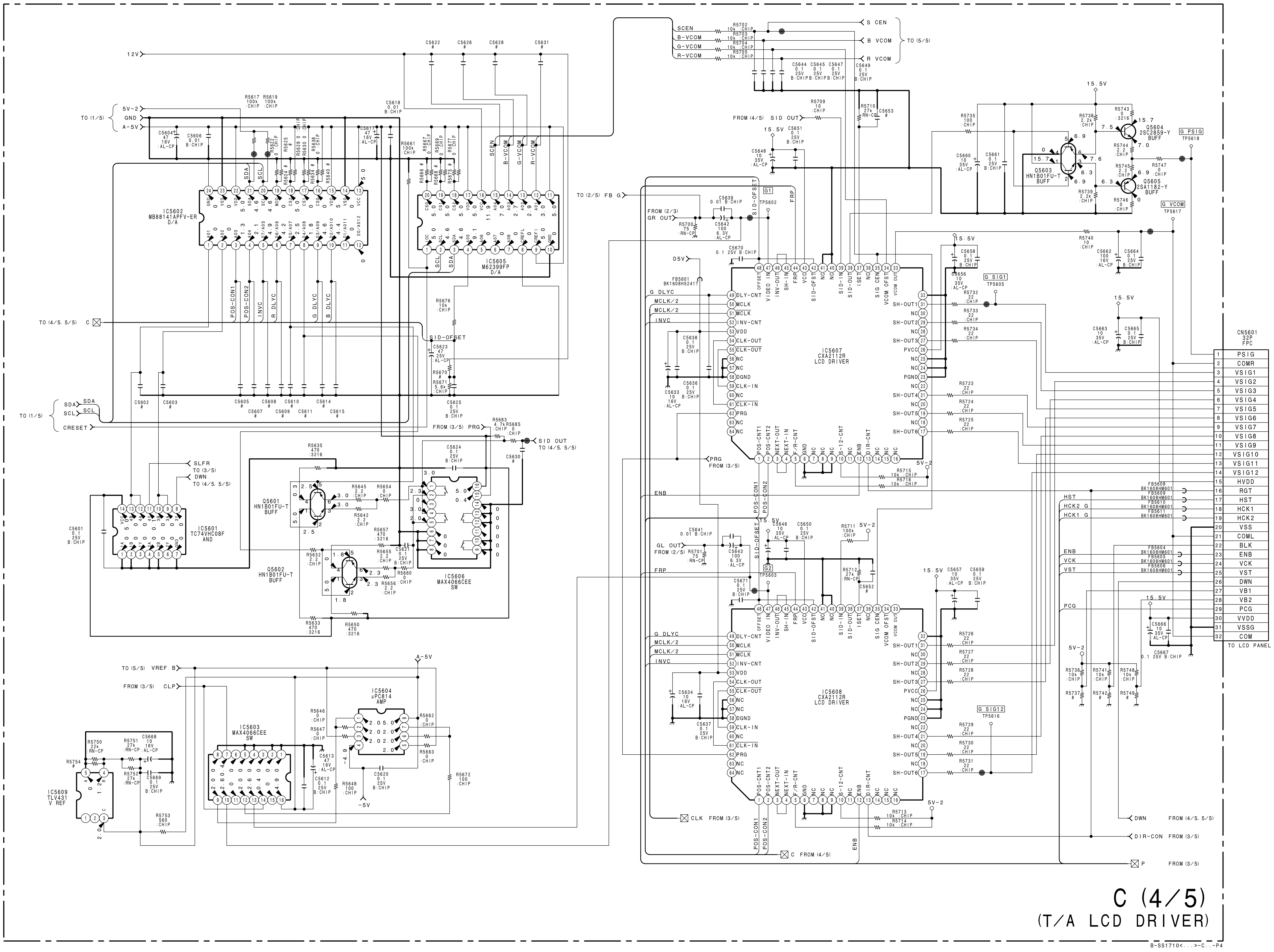

A-5V
RR OUT TO (5/5)
RL OUT TO (5/5)
FROM (1/5) RR
FROM (1/5) RL
IC5201 MAX4117 AMP
GR OUT TO (4/5)
GL OUT TO (4/5)
FROM (1/5) GR
FROM (1/5) GL
IC5202 MAX4117 AMP
BR OUT TO (5/5)
BL OUT TO (5/5)
FROM (1/5) BR
FROM (1/5) BL
IC5203 MAX4117 AMP
-5V
AGC D/A R TO (1/5)
12V
IC5207 MAX4066CEE SW
IC5208 TLV431 V REF
A-5V
IC5204 μPC814 AMP
IC5209 μPC814 AMP
RED FB TO (1/5)
FROM (5/5) FB R
IC5205 μPC814 AMP
IC5210 μPC814 AMP
GREEN FB TO (1/5)
FROM (4/5) FB G
IC5206 μPC814 AMP
IC5211 μPC814 AMP
BLUE FB TO (1/5)
FROM (5/5) FB B
-5V
-5V
C (2/5)
(AMP)
B-SS1710<...>-C..-P2

- Refer to page 10-58, 10-59 for Printed Wiring Board
- Refer to page 10-60 for Waveforms
- Refer to page 10-60 for IC Block Diagrms

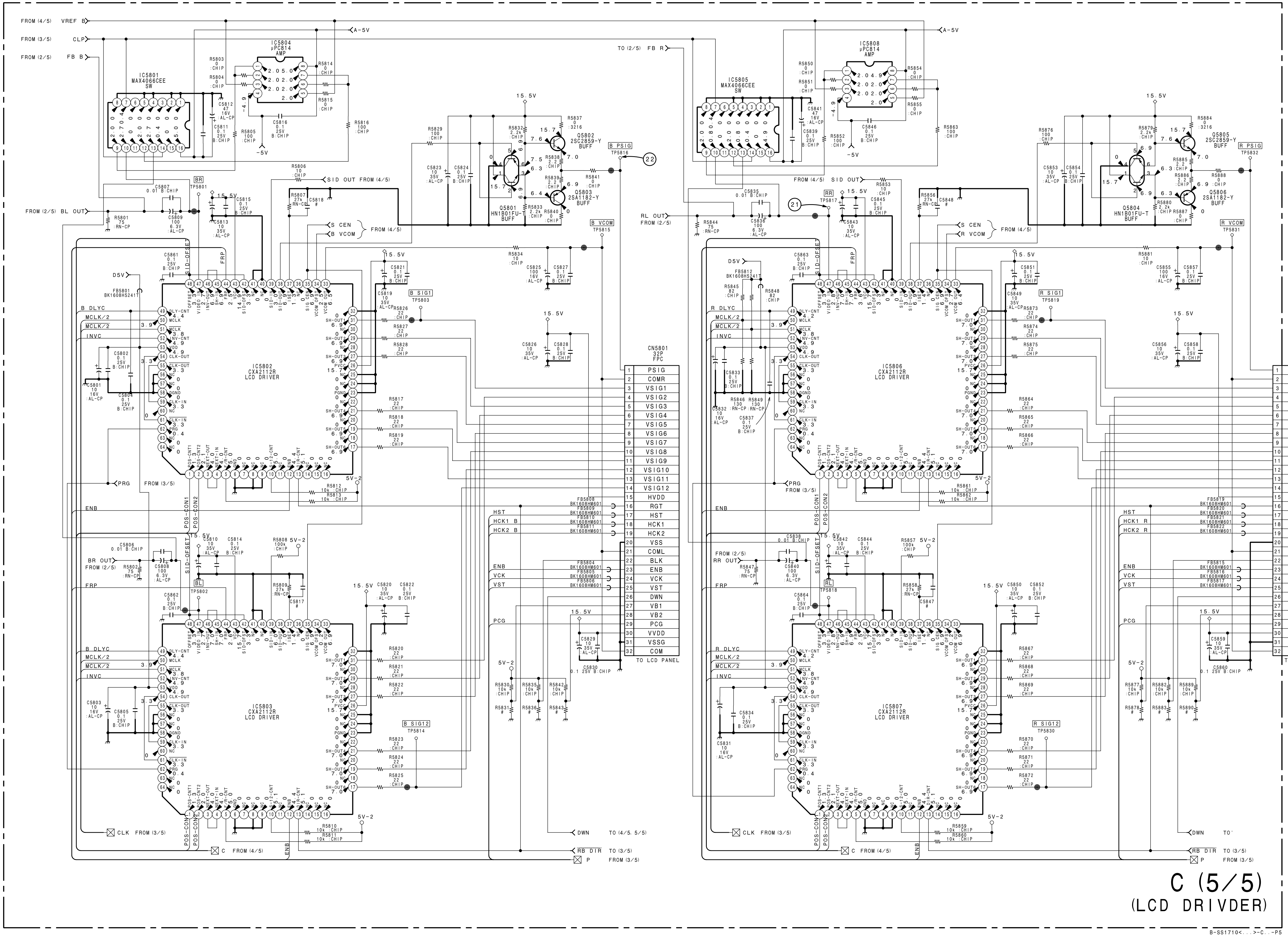

5V-2
GND
IC5402
MC10H350
PECL TO TTL
FROM (1/5)
MCLK-N/2
MCLK-P/2
CLK TO (4/5, 5/5)
HSYNC-N
HSYNC-P
VSYNC-N
VSYNC-P
IC5403
ISPLSI1032E
TG
VSYNC TP5403
HSYNC TP5404
SLFR TO (4/5)
FRP
HCK2
HCK1
HST
ENB
VCK
VST
DIR-CON
RB DIR
SCLK
ISPEN
SDI
MCLK/2 TP5401
CLP TP5414
SELECT OUT TP5405
SELECT OUT
CLP
SELECT
MODE
SDO
PRG
PCG
PRG TO (4/5, 5/5)
IC5405
IC74VHC240F
BUFF
IC5406
IC74VHC240F
BUFF
HCK1 TP5406
HCK2 TP5410
ENB TP5407
VCK TP5408
VST TP5409
PCG TP5411
RB DIR TP5412
DIR CON TP5413
FB5401
BK1608HM601
HCK1 B
HCK1 G
HCK1 R
HCK2 B
HCK2 G
HCK2 R
DIR-CON TO (4/5)
RB DIR TO (5/5)
P TO (4/5, 5/5)
CN5401
8P
WHT
:SMD
SCLK 1
GND 2
MODE 3
PLUG 4
ISPEN 5
SDI 6
SDO 7
VCC 8
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
(54)
C (3/5)
(TG)
B-SS1710<...>-C..-P3

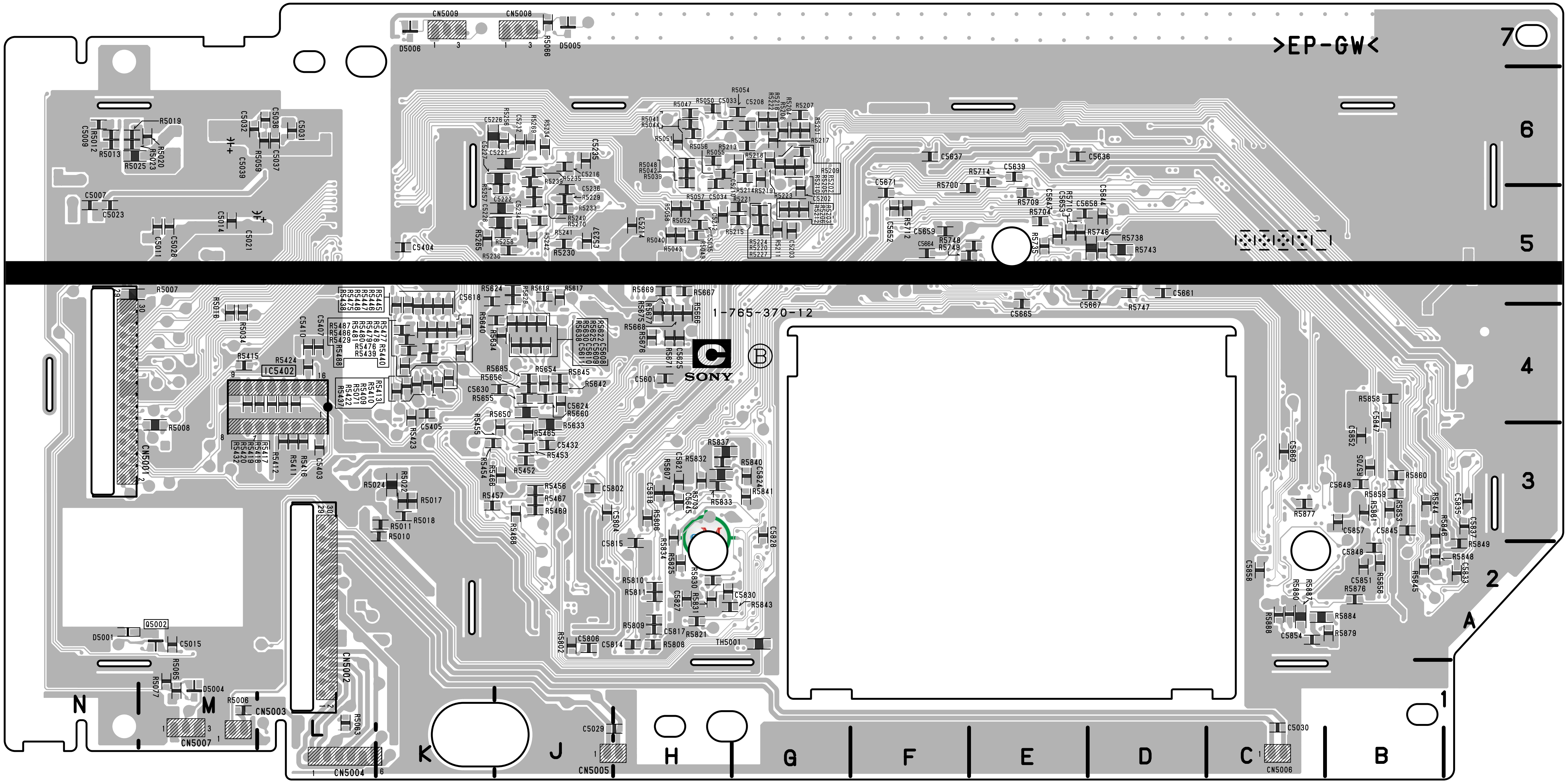
1
2
3
4
5

- Refer to page 10-58, 10-59 for Printed Wiring Board
- Refer to page 10-60 for Waveforms
- Refer to page 10-60 for IC Block Diagrms


C (4/5)
(T/A LCD DRIVER)
IC5601 TC74VHC08F AND
IC5602 MB88141APFV-ER D/A
IC5603 MAX4066CEE SW
IC5604 μPC814 AMP
IC5605 M62399FP D/A
IC5606 MAX4066CEE SW
IC5607 CXA2112R LCD DRIVER
IC5608 CXA2112R LCD DRIVER
IC5609 TLV431 V REF
Q5601 HN1B01FU-T BUFF
Q5602 HN1B01FU-T BUFF
Q5603 HN1B01FU-T BUFF
Q5604 2SC2859-Y BUFF
Q5605 2SA1182-Y BUFF
CN5601 32P FPC
TO LCD PANEL
PSIG
COMR
VSIG1
VSIG2
VSIG3
VSIG4
VSIG5
VSIG6
VSIG7
VSIG8
VSIG9
VSIG10
VSIG11
VSIG12
HVDD
RGT
HST
HCK1
HCK2
VSS
COML
BLK
ENB
VCK
VST
DWN
VB1
VB2
PCG
VVDD
VSSG
COM
TO (1/5)
TO (5/5)
TO (4/5, 5/5)
FROM (3/5)
FROM (4/5)
FROM (2/3)
TO (2/5) FB G
12V
15.5V
5V-2
-5V
D5V
S CEN
B VCOM
G VCOM
R VCOM
SID OUT
GR OUT
GL OUT
SDA
SCL
CRESET
SLFR
DWN
VREF B
CLP
PRG
CLK
DIR-CON
G PSIG
G VCOM
G SIG1
G SIG12
B-SS1710<...>-C..-P4

- Refer to page 10-58, 10-59 for Printed Wiring Board
- Refer to page 10-60 for Waveforms
- Refer to page 10-60 for IC Block Diagrms


C (5/5)
(LCD DRIVDER)
IC5801 MAX4066CEE SW
IC5804 μPC814 AMP
IC5805 MAX4066CEE SW
IC5808 μPC814 AMP
IC5802 CXA2112R LCD DRIVER
IC5803 CXA2112R LCD DRIVER
IC5806 CXA2112R LCD DRIVER
IC5807 CXA2112R LCD DRIVER
Q5801 HN1B01FU-T BUFF
Q5802 2SC2859-Y BUFF
Q5803 2SA1182-Y BUFF
Q5804 HN1B01FU-T BUFF
Q5805 2SC2859-Y BUFF
Q5806 2SA1182-Y BUFF
CN5801 32P FPC
TO LCD PANEL
CN5802 32P FPC
TP LCD PANEL
PSIG
COMR
VSIG1
VSIG2
VSIG3
VSIG4
VSIG5
VSIG6
VSIG7
VSIG8
VSIG9
VSIG10
VSIG11
VSIG12
HVDD
RGT
HST
HCK1
HCK2
VSS
COML
BLK
ENB
VCK
VST
DWN
VB1
VB2
PCG
VVDD
VSSG
COM
FROM (4/5) VREF B
FROM (3/5) CLP
FROM (2/5) FB B
TO (2/5) FB R
FROM (2/5) BL OUT
RL OUT FROM (2/5)
BR OUT FROM (2/5)
RR OUT FROM (2/5)
SID OUT FROM (4/5)
S CEN
B VCOM
R VCOM
FROM (4/5)
A-5V
15.5V
5V-2
D5V
-5V
B PSIG
R PSIG
B SIG1
R SIG1
B SIG12
R SIG12
B DLYC
R DLYC
MCLK/2
INVC
PRG FROM (3/5)
ENB
FRP
HST
HCK1 B
HCK2 B
HCK1 R
HCK2 R
VCK
VST
PCG
CLK FROM (3/5)
C FROM (4/5)
DWN TO (4/5, 5/5)
RB DIR TO (3/5)
P FROM (3/5)
SID-OFSET
POS-CON1
POS-CON2
B-SS1710<...>-C..-P5


>EP-GW<
1-765-370-12
C
SONY
B
CN5009
CN5008
D5006
D5005
CN5001
CN5002
CN5003
CN5004
CN5005
CN5006
CN5007
IC5402
Q5002
D5001
D5004
TH5001
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
J
K
L
M
N

C – B SIDE –

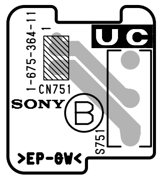
SUFFIX ; -12

C

1-675-370-12

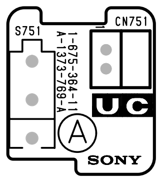
IC5001	N-5
IC5002	M-3
IC5003	N-6
IC5004	M-5
IC5005	N-2
IC5007	L-6
IC5008	H-6
IC5009	H-5
IC5010	H-5
IC5011	M-1
IC5012	K-1
IC5013	M-5
IC5201	G-6
IC5202	G-5
IC5203	G-5
IC5204	J-5
IC5205	J-5
IC5206	J-5
IC5207	J-5
IC5208	H-5
IC5209	J-5
IC5210	J-5
IC5211	K-5
IC5402	L-4
IC5403	L-4
IC5405	J-3
IC5406	J-3
IC5601	H-4
IC5602	K-4
IC5603	D-5
IC5604	D-5
IC5605	J-4
IC5606	J-4
IC5607	E-5
IC5608	F-5
IC5609	D-5
IC5801	H-4
IC5802	H-3
IC5803	H-1
IC5804	H-4
IC5805	A-4
IC5806	B-2
IC5807	B-3
IC5808	B-5
Q5001	N-2
Q5002	* M-2
Q5601	J-4
Q5602	J-4
Q5603	D-5
Q5604	D-4
Q5605	E-5
Q5801	H-3
Q5802	H-3
Q5803	H-3
Q5804	C-2
Q5805	B-2
Q5806	C-2
TP5000	L-5
TP5001	M-4
TP5002	M-4
TP5003	M-4
TP5004	J-1
TP5005	N-2
TP5007	L-3
TP5008	N-1
TP5009	K-3
TP5010	M-6
TP5012	H-7
TP5013	H-7
TP5014	H-7
TP5015	H-7
TP5016	H-7
TP5017	H-6
TP5018	L-4
TP5019	L-5
TP5020	M-6
TP5021	L-5
TP5401	L-5
TP5402	L-4
TP5404	L-4
TP5405	K-6
TP5406	G-4
TP5407	J-2
TP5408	K-3
TP5409	J-3
TP5410	K-4
TP5411	J-2
TP5412	K-2
TP5413	H-4
TP5414	K-3
TP5602	D-5
TP5603	F-6
TP5605	E-5
TP5617	F-5
TP5618	F-5
TP5801	J-2
TP5802	J-2
TP5803	H-1
TP5810	B-1
TP5813	G-3
TP5814	H-1
TP5815	H-2
TP5817	A-3
TP5818	A-4
TP5819	C-2
TP5820	B-1
TP5823	B-1
TP5824	B-1
TP5827	B-1
TP5828	B-1
TP5830	C-3
TP5831	C-4
TP5832	C-2
RV5001	H-6
RV5002	H-6
RV5003	H-5

*:B Side mount


1-675-364-11
CN751
UC
SONY
B
>EP-GW<
S751

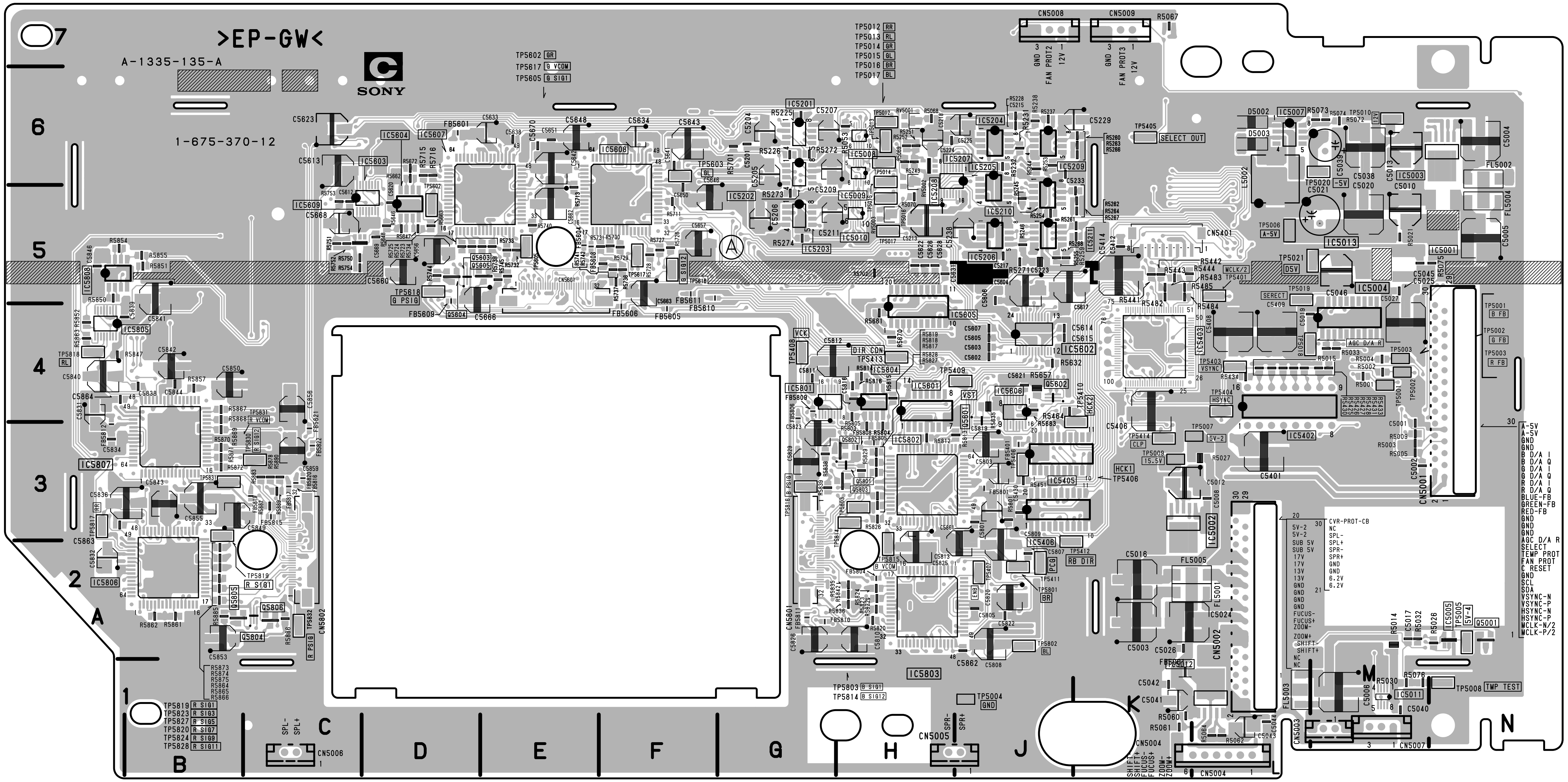
UC – B SIDE –

SUFFIX ; -11


S751
CN751
1-675-364-11
A-1323-709-A
UC
A
SONY

UC – A SIDE –

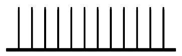
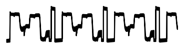
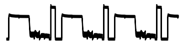
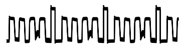
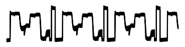
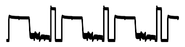
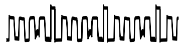
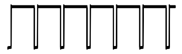
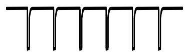
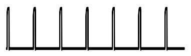
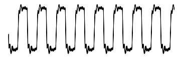
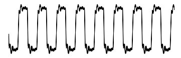
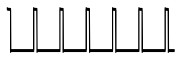
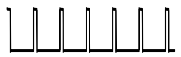
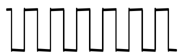
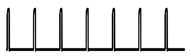
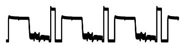
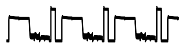
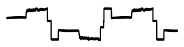
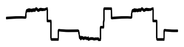
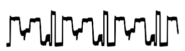
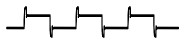
SUFFIX ; -11


>EP-GW<
A-1335-135-A
1-675-370-12
SONY
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
J
K
M
N
CN5008
CN5009
GND
FAN PROT2
12V
FAN PROT3
SELECT OUT
CN5401
CN5001
A-5V
A-5V
GND
GND
B D/A I
B D/A Q
G D/A I
G D/A Q
R D/A I
R D/A Q
BLUE-FB
GREEN-FB
RED-FB
GND
GND
GND
AGC D/A R
SELECT
TEMP PROT
FAN PROT
C RESET
GND
SCL
SDA
VSYNC-N
VSYNC-P
HSYNC-N
HSYNC-P
MCLK-N/2
MCLK-P/2
CN5002
CVR-PROT-CB
NC
SPL-
SPL+
SPR-
SPR+
GND
GND
6.2V
6.2V
5V-2
5V-2
SUB 5V
SUB 5V
17V
17V
13V
13V
GND
GND
GND
GND
FUCUS-
FUCUS+
ZOOM-
ZOOM+
SHIFT-
SHIFT+
NC
NC
CN5003
CN5004
CN5005
CN5006
CN5007
TP5008 TMP TEST
SHIFT+
SHIFT-
FUCUS-
FUCUS+
ZOOM-
ZOOM+

C – A SIDE –

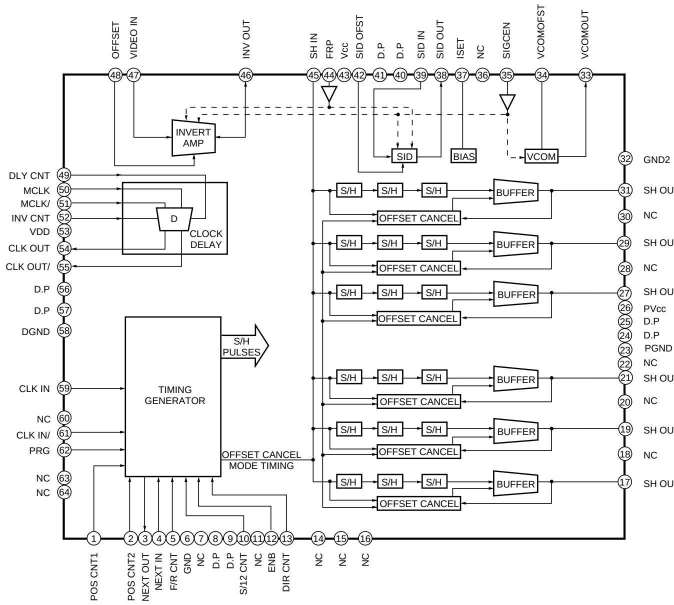
SUFFIX ; -12

C Board Waveforms

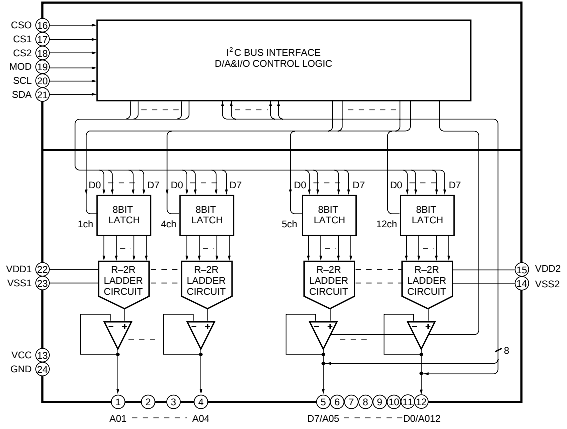
①  5.2Vp-p (H) TP5018 AGC D/A R	②  1.0Vp-p (H) TP5012 RR	③  1.0Vp-p (H) TP5014 GR	④  1.0Vp-p (H) TP5016 BR
⑤  1.0Vp-p (H) TP5013 RL	⑥  1.0Vp-p (H) TP5015 GR	⑦  1.0Vp-p (H) TP5017 BL	⑧  5.2Vp-p (H) TP5403 VSYNC
⑨  5.3Vp-p (H) TP5404 HSYNC	⑩  5.0Vp-p (V) TP5414 CLP	⑪  5.7Vp-p (H) TP5406 HCK1	⑫  5.7Vp-p (H) 5410 HCK2
⑬  5.2Vp-p TP5411 PCG	⑭  5.2Vp-p (H) TP5407 ENB	⑮  5.1Vp-p (H) TP5408 VCK	⑯  5.1Vp-p (H) TP5409 VST
⑰  1.0Vp-p (H) TP5602 G1	⑱  1.0Vp-p (H) TP5603 G2	⑲  10.0Vp-p (H) TP5605 G SIG1	⑳  10.0Vp-p (X) TP5616 G SIG 12
㉑  2.5Vp-p (H) TP5817 RR	㉒  9.5Vp-p (H) TP5816 B PSIG		

C ,H Boards IC Block Diagrams

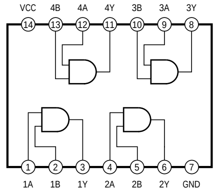
CXA2112R-T6 (C Board:IC5607, 5608, 5802, 5803, 5806, 5807)


OFFSET
VIDEO IN
INV OUT
SH IN
FRP
Vcc
SID OFST
D.P
D.P
SID IN
SID OUT
ISET
NC
SIGCEN
VCOMOFST
VCOMOUT
INVERT AMP
SID
BIAS
VCOM
GND2
DLY CNT
MCLK
MCLK/
INV CNT
VDD
CLK OUT
CLK OUT/
D.P
D.P
DGND
CLOCK DELAY
D
S/H
BUFFER
OFFSET CANCEL
SH OUT1
NC
SH OUT2
NC
SH OUT3
PVcc
D.P
D.P
PGND
NC
SH OUT4
NC
SH OUT5
NC
SH OUT6
S/H PULSES
TIMING GENERATOR
CLK IN
NC
CLK IN/
PRG
NC
NC
OFFSET CANCEL MODE TIMING
POS CNT1
POS CNT2
NEXT OUT
NEXT IN
F/R CNT
GND
NC
D.P
D.P
S/12 CNT
NC
ENB
DIR CNT
NC
NC
NC

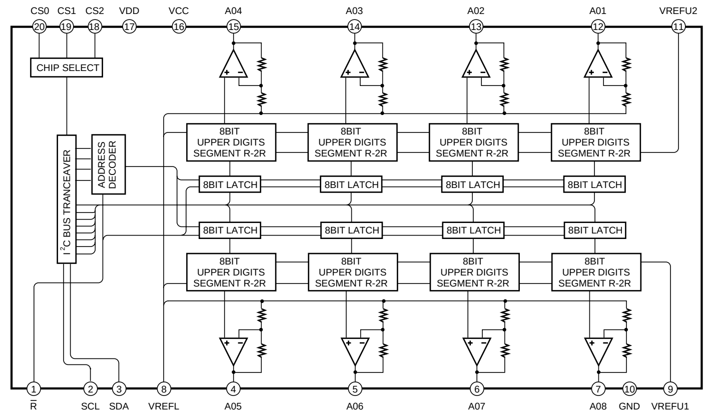
MB8814APFV-ER (C Board:IC5602)
MB8814APFV-ER (H Board:IC6301, 6303)


CSO
CS1
CS2
MOD
SCL
SDA
I²C BUS INTERFACE
D/A&I/O CONTROL LOGIC
D0
D7
8BIT LATCH
1ch
4ch
5ch
12ch
VDD1
VSS1
R–2R LADDER CIRCUIT
VDD2
VSS2
VCC
GND
A01
A04
D7/A05
D0/A012

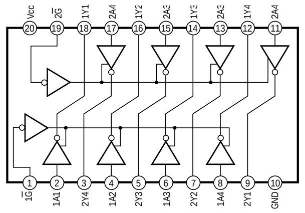
TC74VHC08F (C Board:IC5601)


VCC
4B
4A
4Y
3B
3A
3Y
1A
1B
1Y
2A
2B
2Y
GND

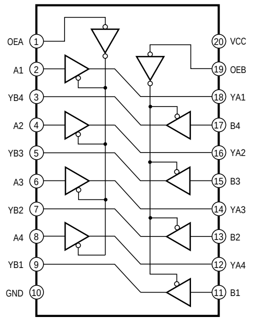
M62399FP-TE2 (C Board:IC5605)

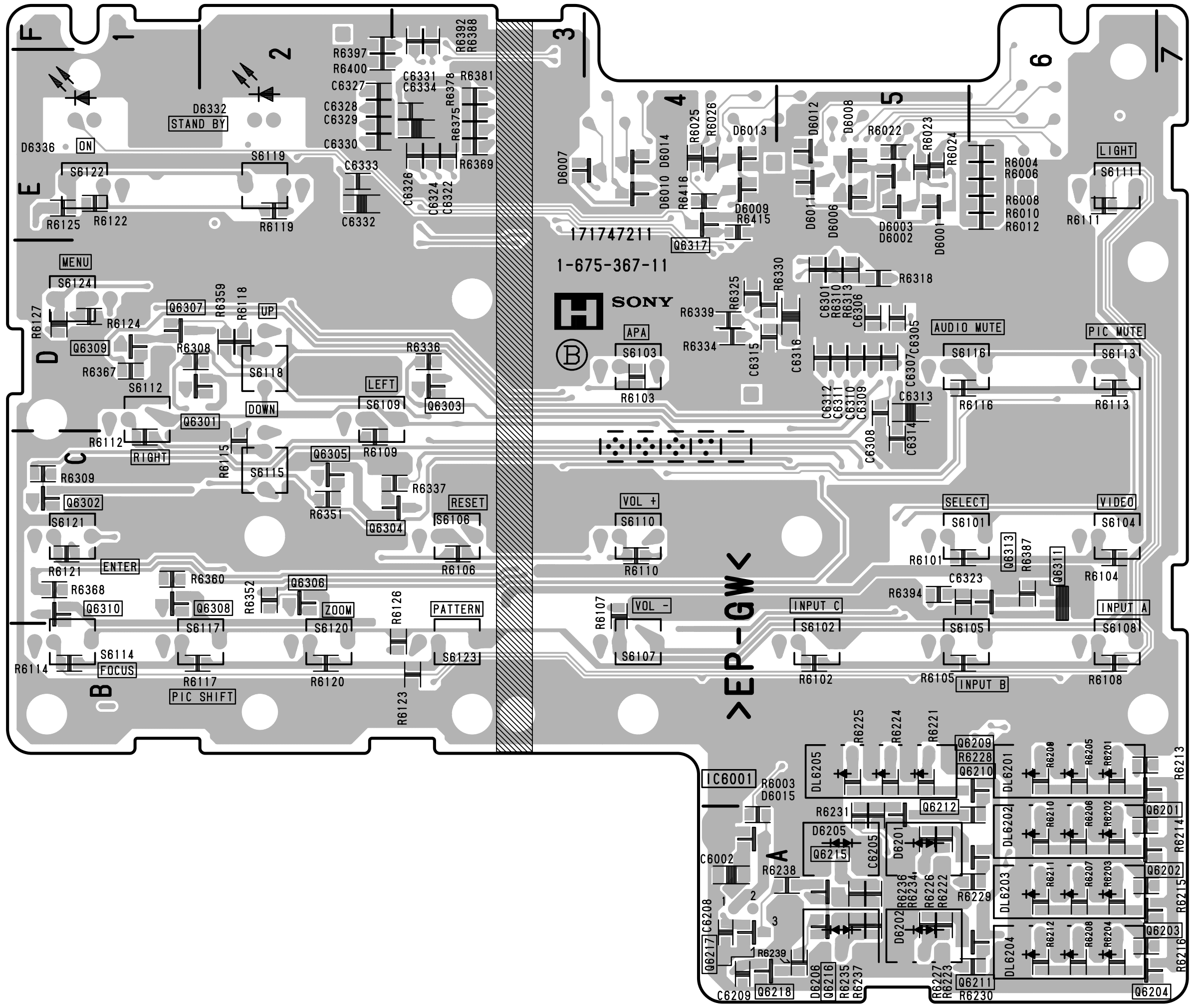

CS0
CS1
CS2
VDD
VCC
A04
A03
A02
A01
VREFU2
CHIP SELECT
8BIT UPPER DIGITS SEGMENT R-2R
8BIT LATCH
I²C BUS TRANCEAVER
ADDRESS DECODER
SCL
SDA
VREFL
A05
A06
A07
A08
GND
VREFU1

TC74VHC240F (C Board:IC5405, 5406)


Vcc
2G
1Y1
2A4
1Y2
2A3
1Y3
2A2
1Y4
2A1
1G
1A1
2Y4
1A2
2Y3
1A3
2Y2
1A4
2Y1
GND

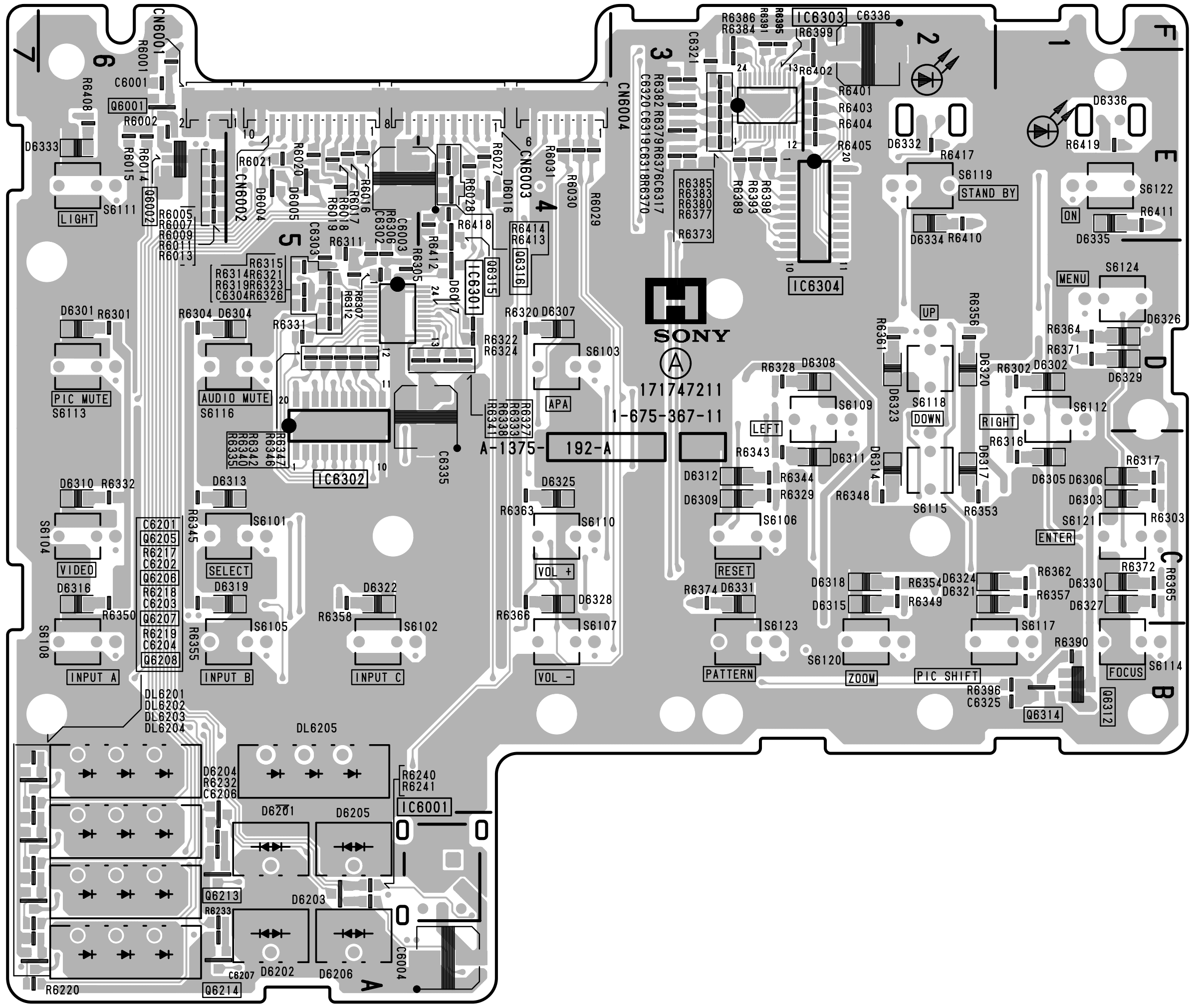
TC74VHC244F (H Board:IC6302, 6304)


OEA
A1
YB4
A2
YB3
A3
YB2
A4
YB1
GND
VCC
OEB
YA1
B4
YA2
B3
YA3
B2
YA4
B1


1-675-367-11
171747211
SONY
B
EP-GW

H – B SIDE –

SUFFIX ; -11


1-675-367-11
171747211
SONY
A
A-1375-192-A

H – A SIDE –

SUFFIX ; -11

—
H
—
1-675-368-11

IC6001	B-4
IC6301	D-4
IC6302	C-5
IC6303	F-2
IC6304	D-2
Q6001	E-6
Q6002	E-6
Q6201	＊A-6
Q6202	＊A-6
Q6203	＊A-6
Q6204	＊A-6
Q6205	C-6
Q6206	C-6
Q6207	C-6
Q6208	B-6
Q6209	＊B-6
Q6210	＊B-6
Q6211	＊A-6
Q6212	＊A-5
Q6213	A-5
Q6214	A-5
Q6215	＊A-5
Q6216	＊A-5
Q6217	＊A-4
Q6218	＊A-4

Q6301	＊D-1
Q6302	＊C-1
Q6303	＊D-3
Q6304	＊C-2
Q6305	＊C-2
Q6306	＊C-2
Q6307	＊D-1
Q6308	＊C-2
Q6309	＊D-1
Q6310	＊C-1
Q6311	＊C-6
Q6312	B-1
Q6313	＊C-6
Q6314	B-1
Q6315	D-4
Q6316	D-4
Q6317	＊D-4

＊:B Side mount

- Refer to page 10-61 for Printed Wiring Board
- Refer to page 10-60 for IC Block Diagrams

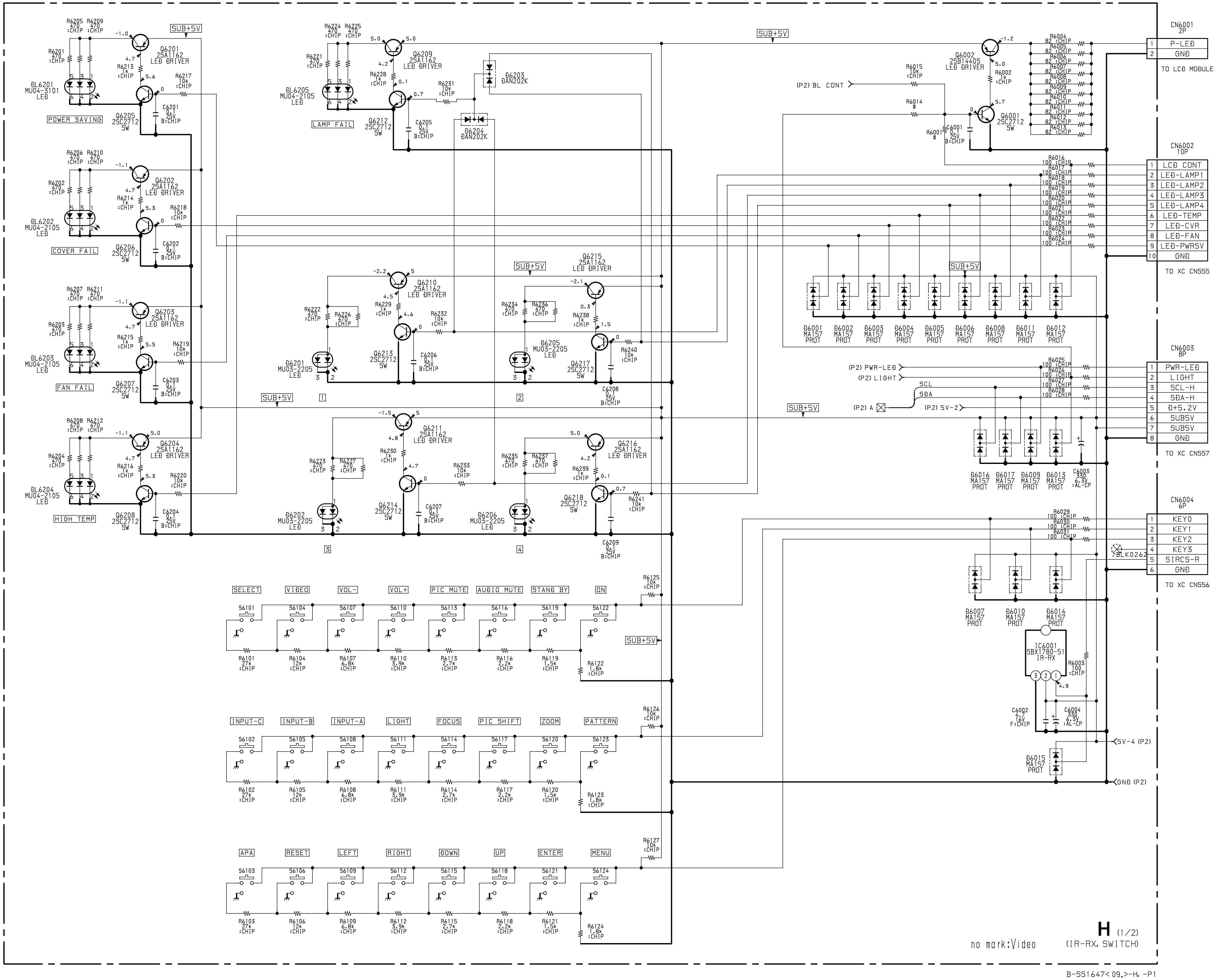
1

2

3

4

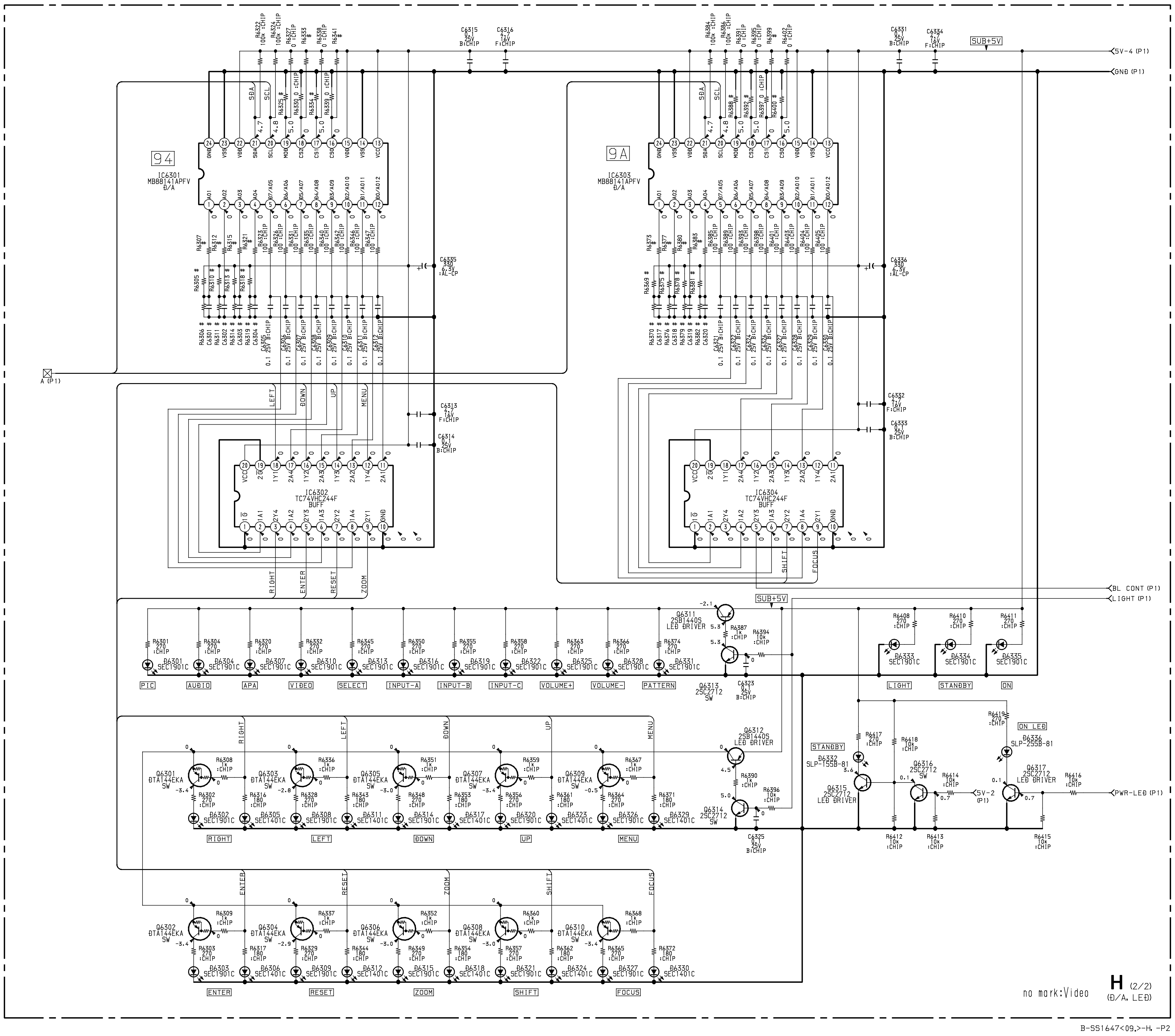
5


SUB+5V
Q6201 2SA1162 LED DRIVER
Q6202 2SA1162 LED DRIVER
Q6203 2SA1162 LED DRIVER
Q6204 2SA1162 LED DRIVER
Q6205 2SC2712 SW
Q6206 2SC2712 SW
Q6207 2SC2712 SW
Q6208 2SC2712 SW
DL6201 MU04-3101 LED
DL6202 MU04-2105 LED
DL6203 MU04-2105 LED
DL6204 MU04-2105 LED
DL6205 MU04-2105 LED
POWER SAVING
COVER FAIL
FAN FAIL
HIGH TEMP
LAMP FAIL
Q6209 2SA1162 LED DRIVER
Q6212 2SC2712 SW
D6203 DAN202K
D6204 DAN202K
Q6210 2SA1162 LED DRIVER
Q6211 2SA1162 LED DRIVER
Q6213 2SC2712 SW
Q6214 2SC2712 SW
Q6215 2SA1162 LED DRIVER
Q6216 2SA1162 LED DRIVER
Q6217 2SC2712 SW
Q6218 2SC2712 SW
D6201 MU03-2205 LED
D6202 MU03-2205 LED
D6205 MU03-2205 LED
D6206 MU03-2205 LED
Q6002 2SB1440S LED DRIVER
Q6001 2SC2712 SW
(P2) BL CONT
CN6001 2P
P-LED
GND
TO LCD MODULE
CN6002 10P
LCD CONT
LED-LAMP1
LED-LAMP2
LED-LAMP3
LED-LAMP4
LED-TEMP
LED-CVR
LED-FAN
LED-PWRSV
GND
TO XC CN555
D6001 MA157 PROT
D6002 MA157 PROT
D6003 MA157 PROT
D6004 MA157 PROT
D6005 MA157 PROT
D6006 MA157 PROT
D6008 MA157 PROT
D6011 MA157 PROT
D6012 MA157 PROT
CN6003 8P
(P2) PWR-LED
(P2) LIGHT
SCL
SDA
(P2) A
(P2) 5V-2
PWR-LED
LIGHT
SCL-H
SDA-H
D+5.2V
SUB5V
SUB5V
GND
TO XC CN557
D6016 MA157 PROT
D6017 MA157 PROT
D6009 MA157 PROT
D6013 MA157 PROT
C6003 330 6.3V :AL-CP
CN6004 6P
KEY0
KEY1
KEY2
KEY3
SIRCS-R
GND
BLK0262
TO XC CN556
D6007 MA157 PROT
D6010 MA157 PROT
D6014 MA157 PROT
IC6001 SBX1780-51 IR-RX
5V-4 (P2)
GND (P2)
D6015 MA157 PROT
SELECT
VIDEO
VOL-
VOL+
PIC MUTE
AUDIO MUTE
STAND BY
ON
INPUT-C
INPUT-B
INPUT-A
LIGHT
FOCUS
PIC SHIFT
ZOOM
PATTERN
APA
RESET
LEFT
RIGHT
DOWN
UP
ENTER
MENU
S6101
S6102
S6103
S6104
S6105
S6106
S6107
S6108
S6109
S6110
S6111
S6112
S6113
S6114
S6115
S6116
S6117
S6118
S6119
S6120
S6121
S6122
S6123
S6124
H (1/2)
(IR-RX, SWITCH)
no mark:Video
B-SS1647<09,>-H, -P1

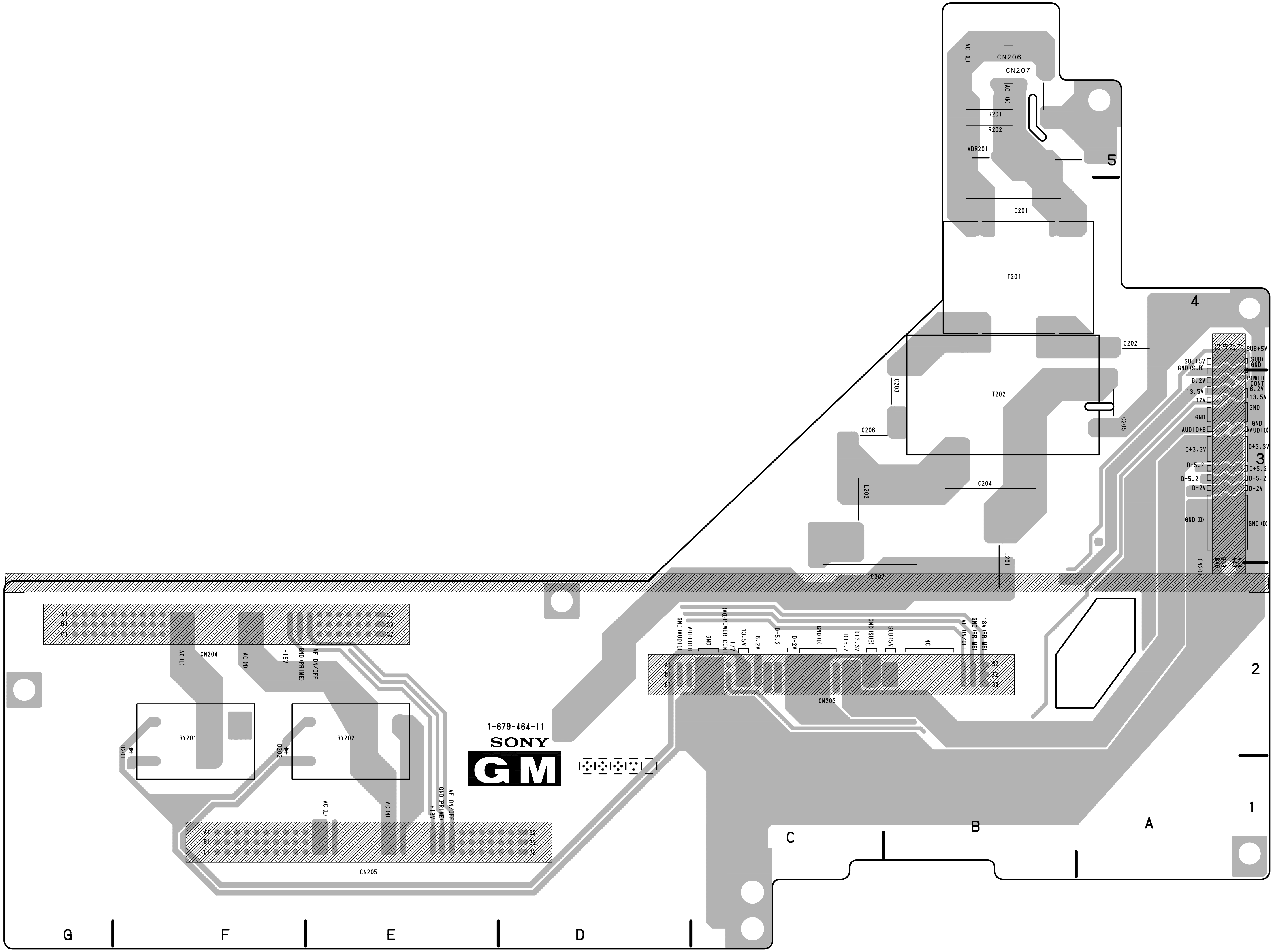
A B C D E F G H

http://getMANUAL.com

- Refer to page 10-61 for Printed Wiring Board
- Refer to page 10-60 for IC Block Diagrams

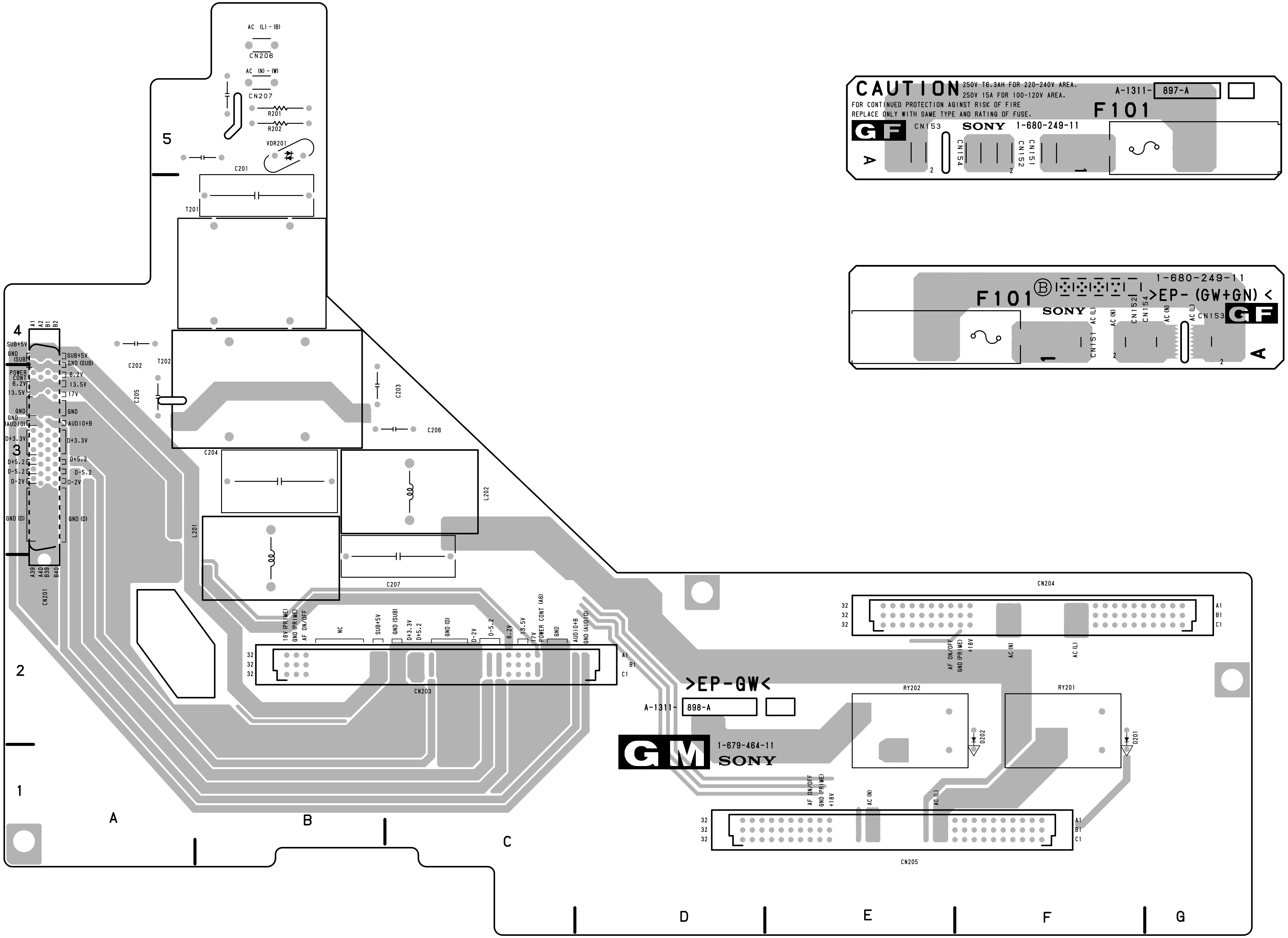


IC6301
MB88141APFV
D/A
IC6303
MB88141APFV
D/A
IC6302
TC74VHC244F
BUFF
IC6304
TC74VHC244F
BUFF
Q6311
2SB1440S
LED DRIVER
Q6312
2SB1440S
LED DRIVER
Q6313
2SC2712
SW
Q6314
2SC2712
SW
Q6315
2SC2712
LED DRIVER
Q6316
2SC2712
SW
Q6317
2SC2712
LED DRIVER
SUB+5V
5V-4 (P1)
GND (P1)
A (P1)
BL CONT (P1)
LIGHT (P1)
PWR-LED (P1)
5V-2 (P1)
PIC
AUDIO
APA
VIDEO
SELECT
INPUT-A
INPUT-B
INPUT-C
VOLUME+
VOLUME-
PATTERN
LIGHT
STANDBY
ON
ON LED
RIGHT
LEFT
DOWN
UP
MENU
ENTER
RESET
ZOOM
SHIFT
FOCUS
H (2/2)
(D/A, LED)
no mark:Video
B-SS1647<09,>-H, -P2


CN206
CN207
AC (L)
AC (N)
R201
R202
VDR201
C201
T201
T202
C202
C203
C205
C206
C204
L202
L201
C207
CN201
SUB+5V
GND (SUB)
6.2V
13.5V
17V
GND
AUDIO+B
D+3.3V
D+5.2
D-5.2
D-2V
GND (D)
POWER CONT
GND (AUDIO)
CN204
CN203
CN205
RY201
RY202
D201
D202
+18V
GND (PRIME)
AF ON/OFF
18V (PRIME)
NC
1-679-464-11
SONY
GM
A
B
C
D
E
F
G
1
2
3
4
5

GM – B SIDE –

SUFFIX ; -11


CAUTION
250V T6.3AH FOR 220-240V AREA.
250V 15A FOR 100-120V AREA.
FOR CONTINUED PROTECTION AGINST RISK OF FIRE
REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE.
A-1311-
897-A
F101
GF
CN153
SONY
1-680-249-11
CN154
CN152
CN151
A

GF – A SIDE –

SUFFIX ; -11

1-680-249-11
F101
>EP- (GW+GN) <
SONY
CN151
CN152
CN154
CN153
GF
A

GF – B SIDE –

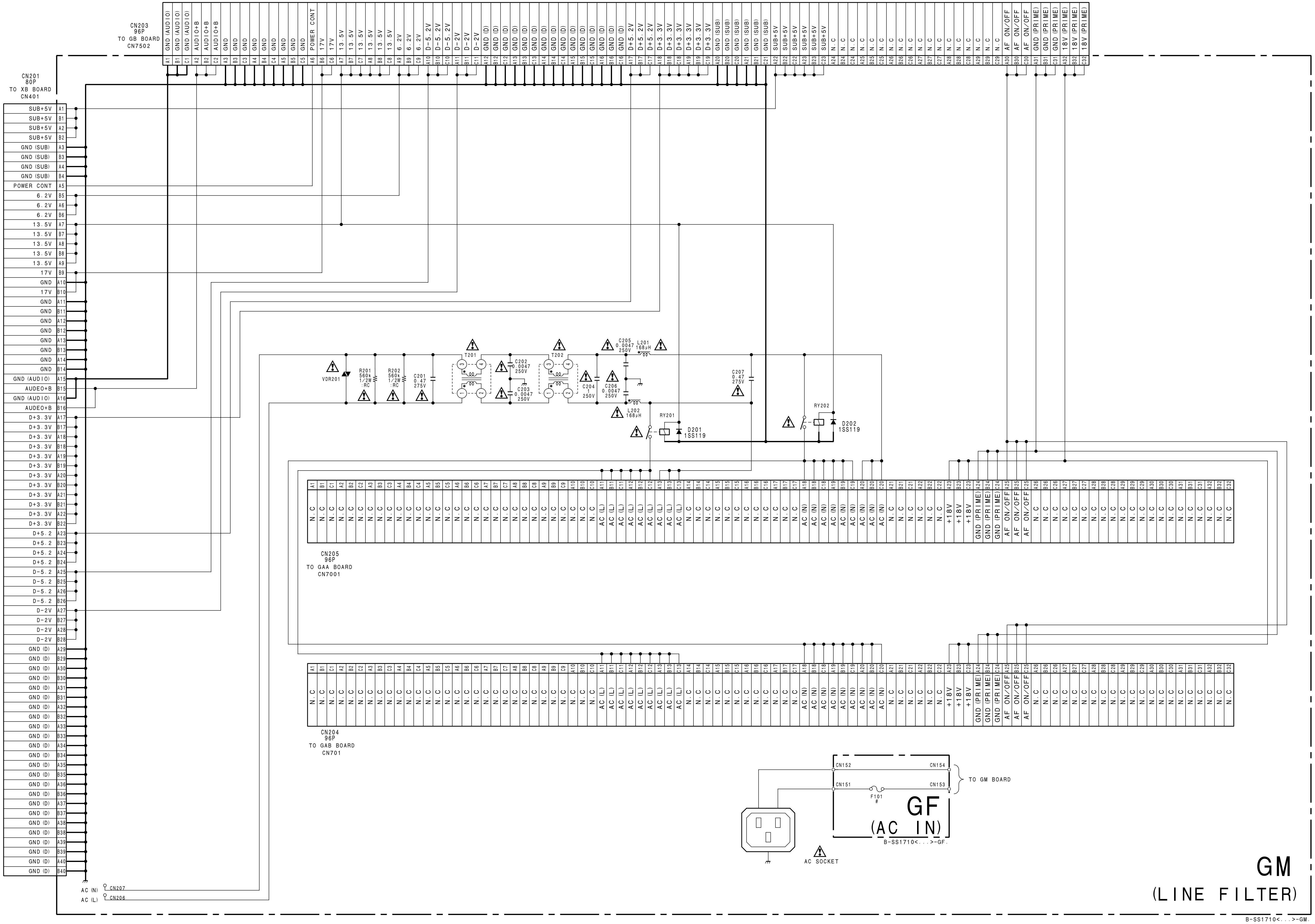
SUFFIX ; -11

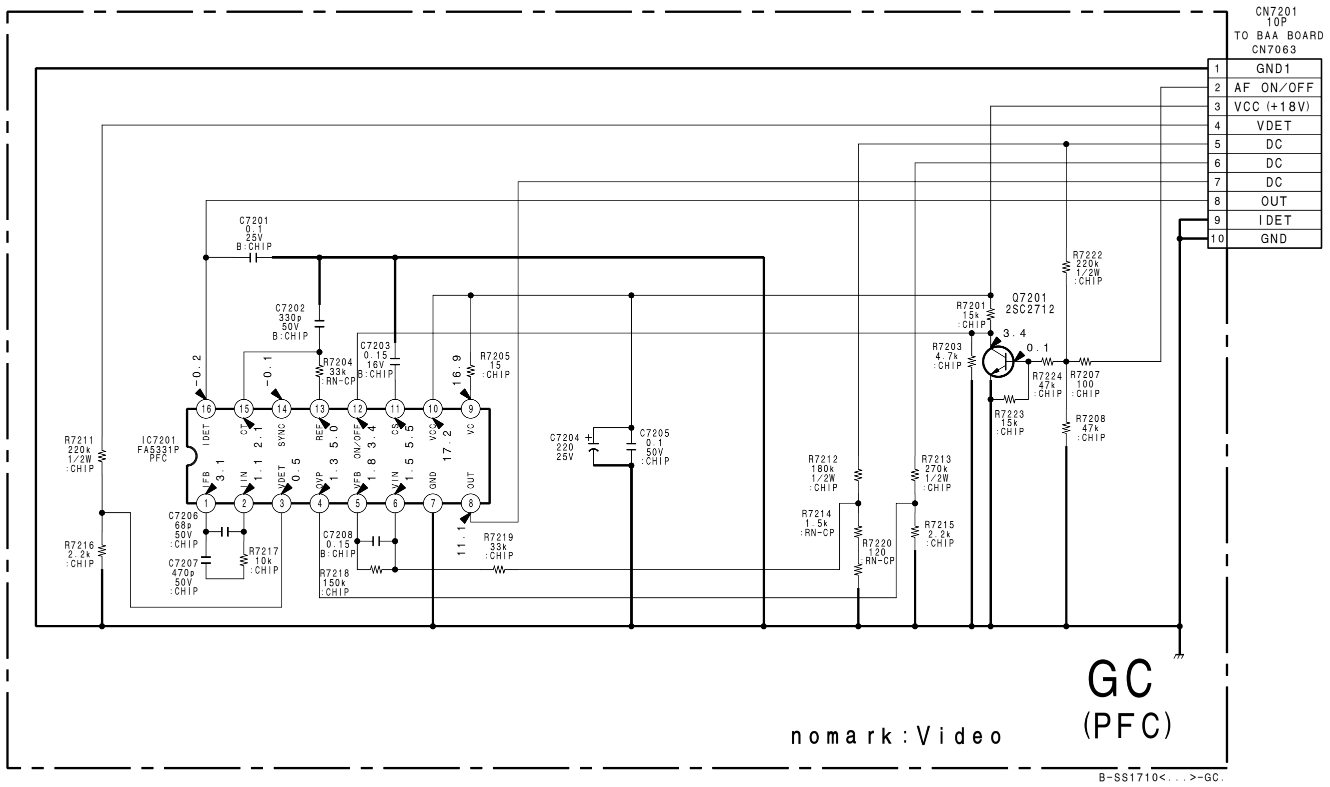
CN206
CN207
R201
R202
VDR201
C201
T201
T202
C202
C203
C204
C205
C206
C207
L201
L202
CN201
CN203
CN204
CN205
RY201
RY202
D201
D202
>EP-GW<
A-1311-
898-A
GM
1-679-464-11
SONY
1
2
3
4
5
A
B
C
D
E
F
G

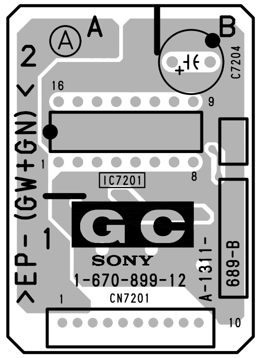
GM – A SIDE –

SUFFIX ; -11

- Refer to page 10-64, 10-65 for Printed Wiring Board

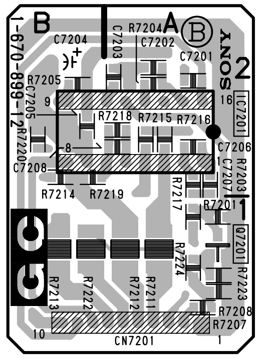

CN203
96P
TO GB BOARD
CN7502
GND (AUDIO)
AUDIO+B
POWER CONT
17V
13.5V
6.2V
D-5.2V
D-2V
GND (D)
D+5.2V
D+3.3V
GND (SUB)
SUB+5V
N.C
AF ON/OFF
GND (PRIME)
18V (PRIME)
CN201
80P
TO XB BOARD
CN401
SUB+5V
GND (SUB)
POWER CONT
6.2V
13.5V
17V
GND
GND (AUDIO)
AUDEO+B
D+3.3V
D+5.2
D-5.2
D-2V
GND (D)
VDR201
R201
560k
1/2W
RC
R202
560k
1/2W
RC
C201
0.47
275V
T201
C202
0.0047
250V
C203
0.0047
250V
T202
C204
1
250V
C205
0.0047
250V
L201
168μH
C206
0.0047
250V
L202
168μH
C207
0.47
275V
RY201
D201
1SS119
RY202
D202
1SS119
AC (L)
AC (N)
+18V
CN205
96P
TO GAA BOARD
CN7001
CN204
96P
TO GAB BOARD
CN701
AC (N)
CN207
AC (L)
CN206
CN152
CN154
CN151
CN153
TO GM BOARD
F101
GF
(AC IN)
B-SS1710<...>-GF.
AC SOCKET
GM
(LINE FILTER)
B-SS1710<...>-GM.


CN7201
10P
TO BAA BOARD
CN7063
1 GND1
2 AF ON/OFF
3 VCC (+18V)
4 VDET
5 DC
6 DC
7 DC
8 OUT
9 IDET
10 GND
IC7201
FA5331P
PFC
Q7201
2SC2712
C7201 0.1 25V B:CHIP
C7202 330p 50V B:CHIP
C7203 0.15 16V B:CHIP
C7204 220 25V
C7205 0.1 50V :CHIP
C7206 68p 50V :CHIP
C7207 470p 50V :CHIP
C7208 0.15 B:CHIP
R7201 15k :CHIP
R7203 4.7k :CHIP
R7204 33k :RN-CP
R7205 15 :CHIP
R7207 100 :CHIP
R7208 47k :CHIP
R7211 220k 1/2W :CHIP
R7212 180k 1/2W :CHIP
R7213 270k 1/2W :CHIP
R7214 1.5k :RN-CP
R7215 2.2k :CHIP
R7216 2.2k :CHIP
R7217 10k :CHIP
R7218 150k :CHIP
R7219 33k :CHIP
R7220 120 :RN-CP
R7222 220k 1/2W :CHIP
R7223 15k :CHIP
R7224 47k :CHIP
IDET CS SYNC REF ON/OFF CS VCC VC
VFB VIN IDET OVP VFB VIN GND OUT
-0.2 -0.1 16.9 3.1 1.1 2.1 0.5 1.3 5.0 1.8 3.4 1.5 5.5 17.2 11.1 3.4 0.1
GC
(PFC)
nomark:Video
B-SS1710<...>-GC.


A
B
2
1
16
9
8
IC7201
C7204
GC
SONY
1-670-899-12
A-1311-689-B
>EP-(GW+GN)<
CN7201
1
10

GC – A SIDE –

SUFFIX ; -12


B
A
C7204
C7203
R7204
C7202
C7201
1-670-899-12
SONY
R7205
C7205
R7220
R7218
R7215
R7216
IC7201
C7206
C7208
R7214
R7219
R7217
R7203
C7207
R7201
Q7201
R7223
R7224
R7213
R7222
R7211
R7212
R7208
R7207
CN7201
GC
2
1
16
9
8
10

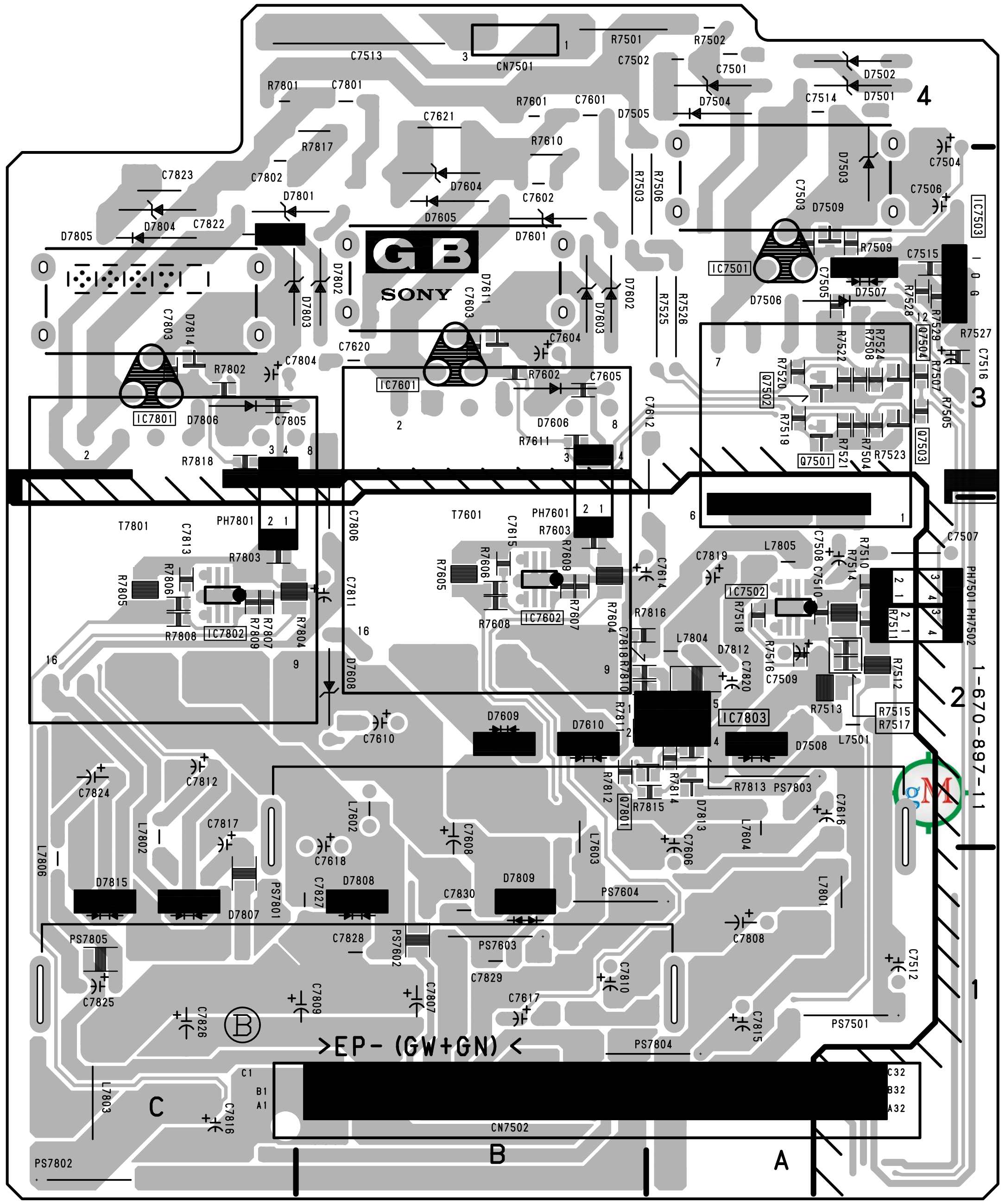
GC – B SIDE –

SUFFIX ; -12

—
GB
—
1-670-897-11

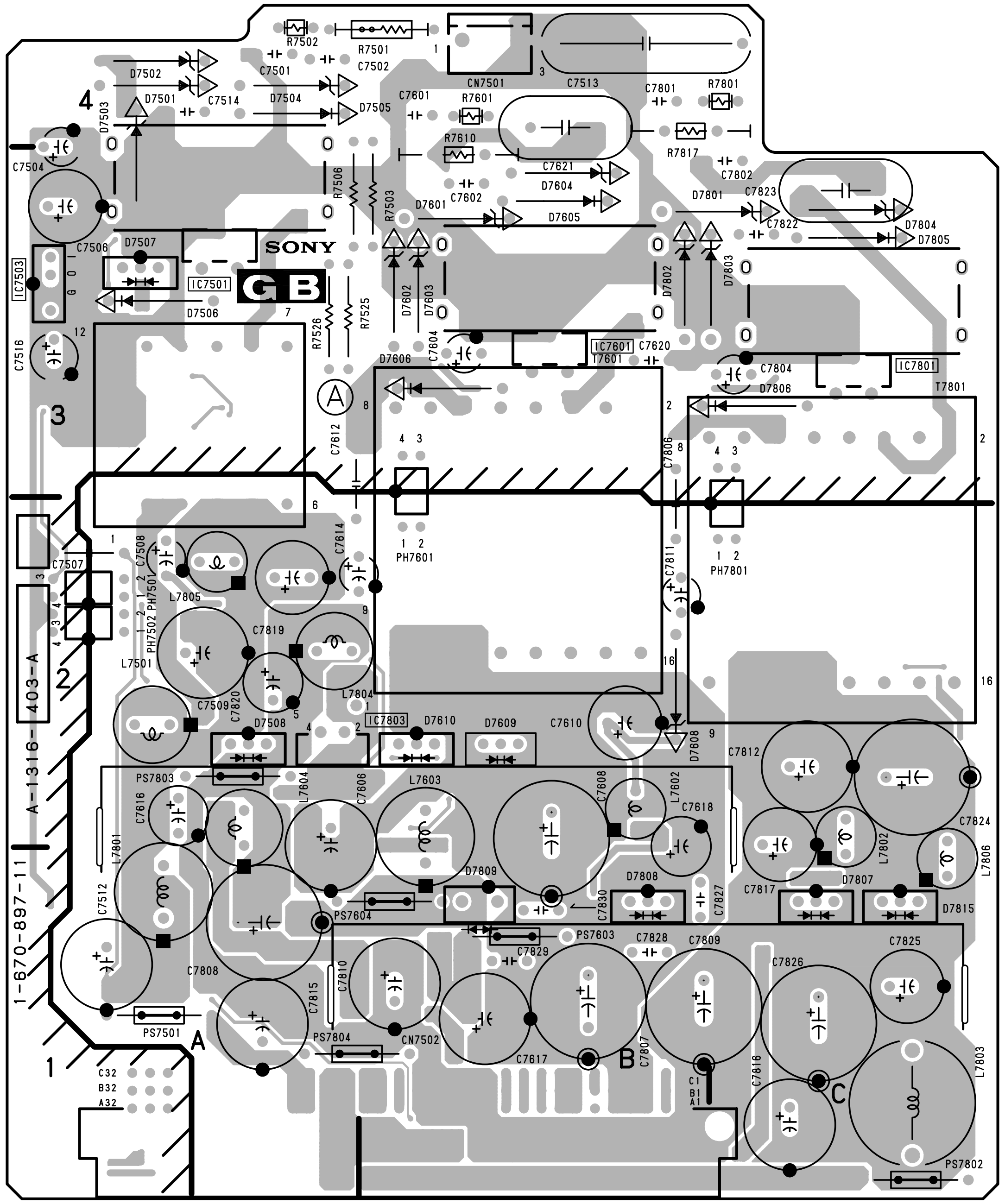
D7501	* A-4
D7502	* A-4
D7503	* A-3
D7504	* A-4
D7505	* A-4
D7506	* B-3
D7507	* A-3
D7508	* A-2
D7509	* A-3
D7601	* B-3
D7602	* B-3
D7603	* B-3
D7604	* B-3
D7605	* B-3
D7606	* B-3
D7608	* B-2
D7609	* B-2
D7610	* B-2
D7611	* B-3
D7801	* A-3
D7802	* B-3
D7803	* B-3
D7804	* C-3
D7805	* C-3
D7806	* C-3
D7807	* C-1
D7808	* B-1
D7809	* B-1
D7812	* A-2
D7813	* A-2
D7814	* C-3
D7815	* C-1
IC7501	* A-3
IC7502	* A-2
IC7503	* A-3
IC7601	* B-3
IC7602	* B-2
IC7801	* C-3
IC7802	* C-2
IC7803	* A-2
Q7501	* A-3
Q7502	* A-3
Q7503	* A-3
Q7504	* A-3
Q7801	* A-2

*:B Side mount


GB
SONY
1-670-897-11
>EP- (GW+GN)<
CN7501
CN7502
T7801
T7601
PH7801
PH7601
PH7501 PH7502
IC7501
IC7502
IC7503
IC7601
IC7602
IC7801
IC7802
IC7803
A
B
C
1
2
3
4

GB – B SIDE –

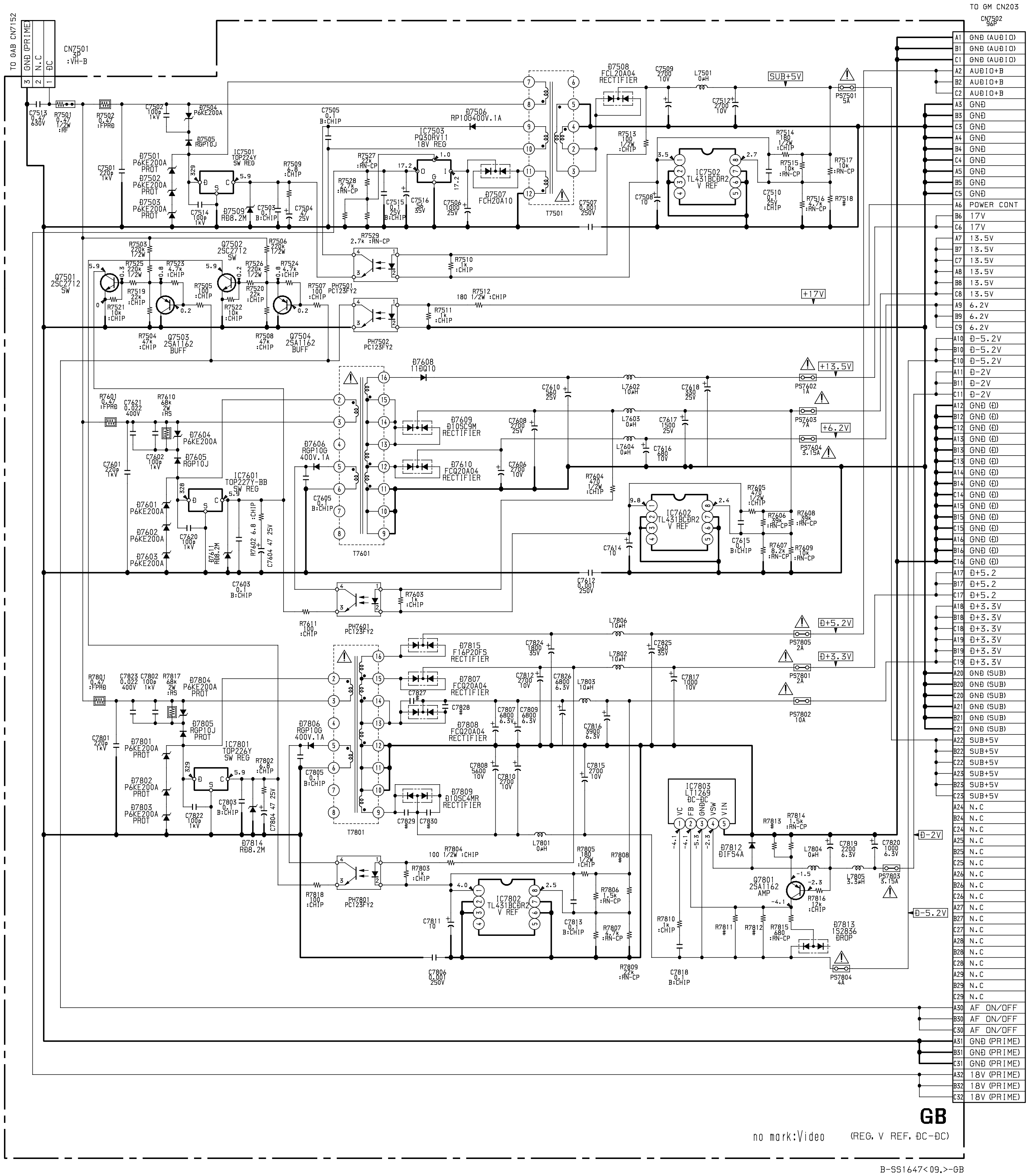
SUFFIX ; -11

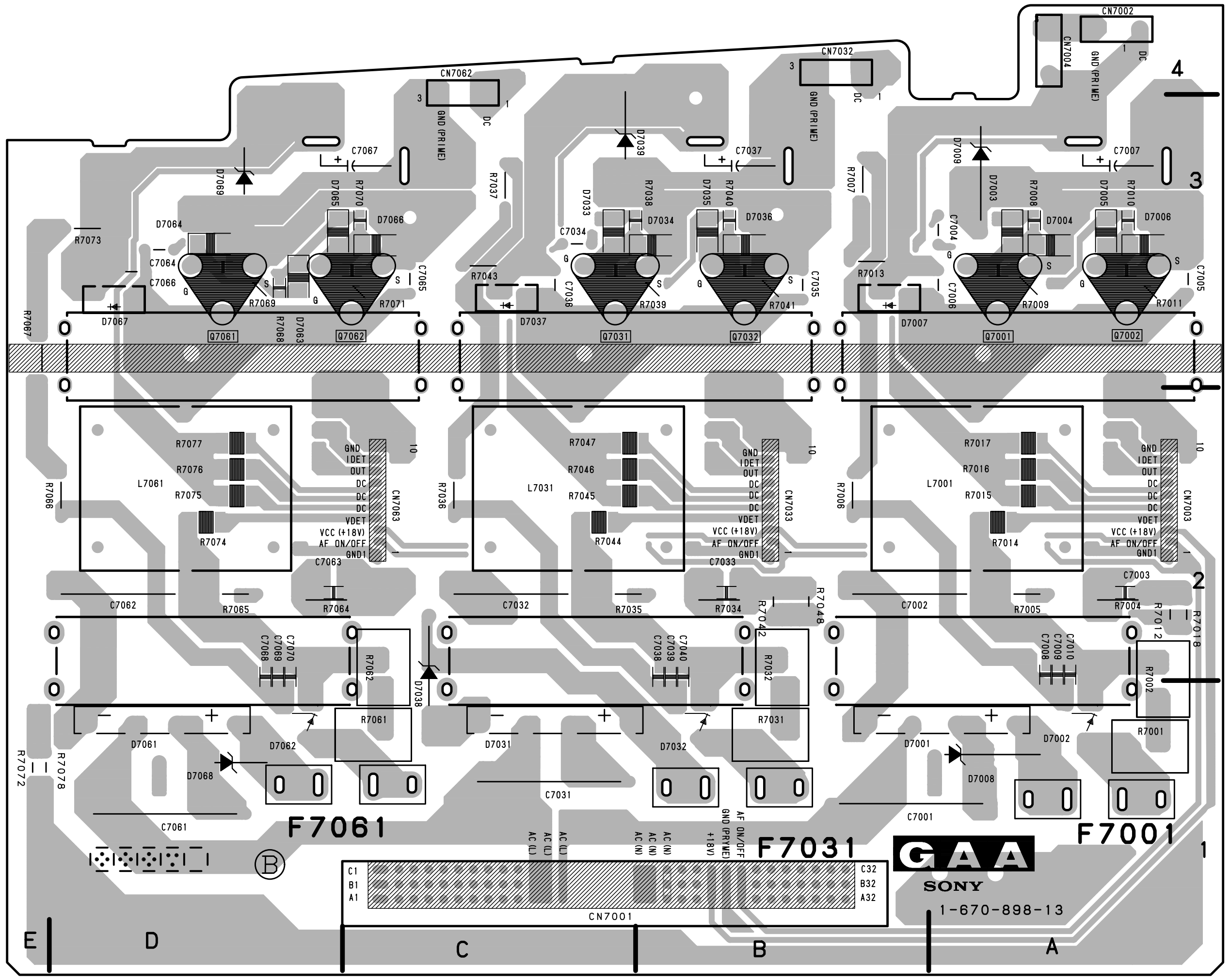

GB
SONY
1-670-897-11
A-1316-403-A
CN7501
CN7502
T7801
PH7601
PH7801
IC7501
IC7503
IC7601
IC7801
IC7803
A
B
C
1
2
3
4

GB – A SIDE –

SUFFIX ; -11

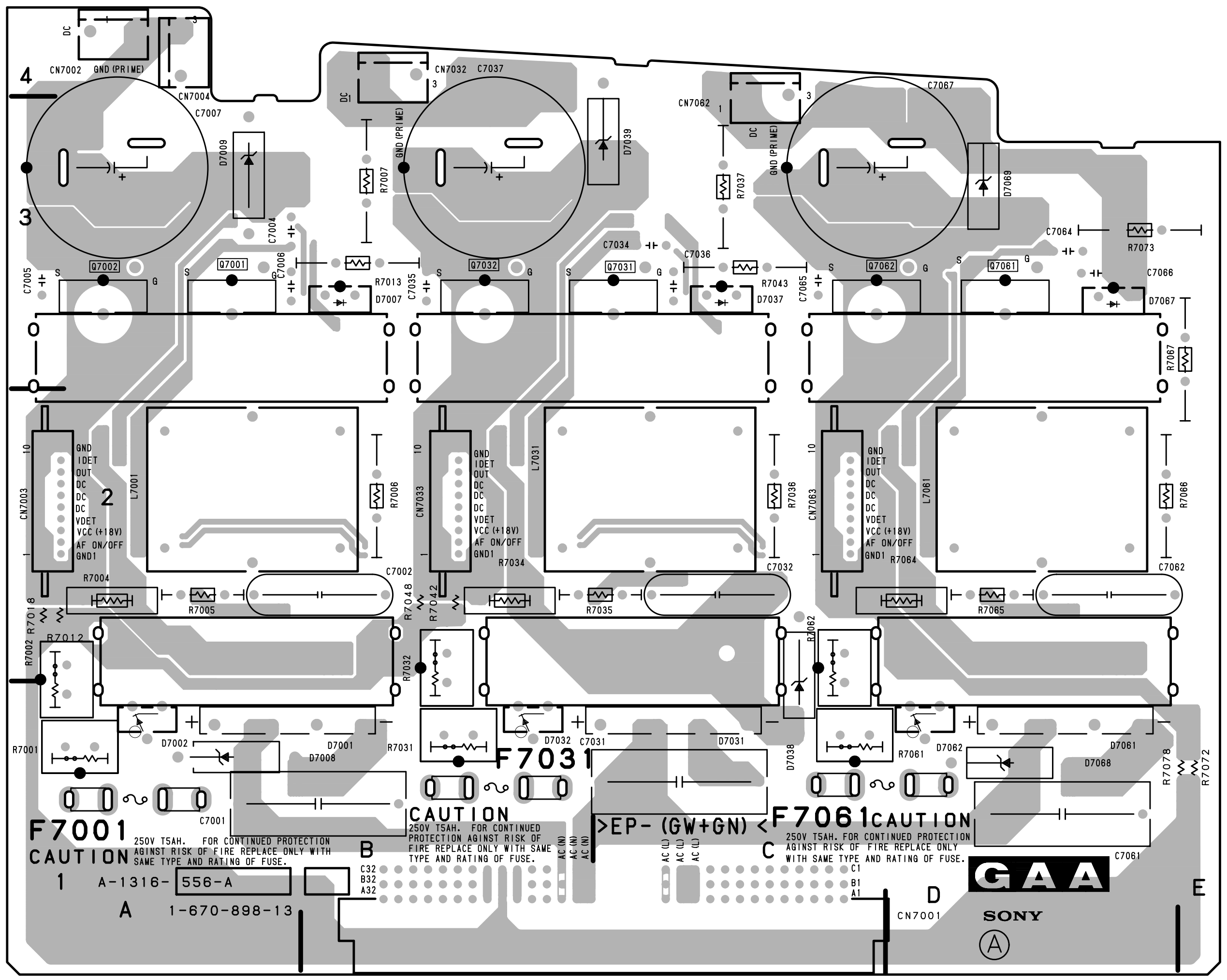
- Refer to page 10-68 for Printed Wiring Board


TO GAB CN7152
CN7501 3P :VH-B
3 GND (PRIME)
2 N.C
1 DC
TO GM CN203
CN7502 96P
A1 GND (AUDIO)
B1 GND (AUDIO)
C1 GND (AUDIO)
A2 AUDIO+B
B2 AUDIO+B
C2 AUDIO+B
A3 GND
B3 GND
C3 GND
A4 GND
B4 GND
C4 GND
A5 GND
B5 GND
C5 GND
A6 POWER CONT
B6 17V
C6 17V
A7 13.5V
B7 13.5V
C7 13.5V
A8 13.5V
B8 13.5V
C8 13.5V
A9 6.2V
B9 6.2V
C9 6.2V
A10 D-5.2V
B10 D-5.2V
C10 D-5.2V
A11 D-2V
B11 D-2V
C11 D-2V
A12 GND (D)
B12 GND (D)
C12 GND (D)
A13 GND (D)
B13 GND (D)
C13 GND (D)
A14 GND (D)
B14 GND (D)
C14 GND (D)
A15 GND (D)
B15 GND (D)
C15 GND (D)
A16 GND (D)
B16 GND (D)
C16 GND (D)
A17 D+5.2
B17 D+5.2
C17 D+5.2
A18 D+3.3V
B18 D+3.3V
C18 D+3.3V
A19 D+3.3V
B19 D+3.3V
C19 D+3.3V
A20 GND (SUB)
B20 GND (SUB)
C20 GND (SUB)
A21 GND (SUB)
B21 GND (SUB)
C21 GND (SUB)
A22 SUB+5V
B22 SUB+5V
C22 SUB+5V
A23 SUB+5V
B23 SUB+5V
C23 SUB+5V
A24 N.C
B24 N.C
C24 N.C
A25 N.C
B25 N.C
C25 N.C
A26 N.C
B26 N.C
C26 N.C
A27 N.C
B27 N.C
C27 N.C
A28 N.C
B28 N.C
C28 N.C
A29 N.C
B29 N.C
C29 N.C
A30 AF ON/OFF
B30 AF ON/OFF
C30 AF ON/OFF
A31 GND (PRIME)
B31 GND (PRIME)
C31 GND (PRIME)
A32 18V (PRIME)
B32 18V (PRIME)
C32 18V (PRIME)
SUB+5V
+17V
+13.5V
+6.2V
D+5.2V
D+3.3V
D-2V
D-5.2V
IC7501 TOP224Y SW REG
IC7502 TL431BCBR2 V REF
IC7503 PQ30RV11 18V REG
IC7601 TOP227Y-BB SW REG
IC7602 TL431BCBR2 V REF
IC7801 TOP226Y SW REG
IC7802 TL431BCBR2 V REF
IC7803 LT1269 DC-DC
T7501
T7601
T7801
PH7501 PC123FY2
PH7502 PC123FY2
PH7601 PC123FY2
PH7801 PC123FY2
Q7501 2SC2712 SW
Q7502 2SC2712 SW
Q7503 2SA1162 BUFF
Q7504 2SA1162 BUFF
Q7801 2SA1162 AMP
D7508 FCL20A04 RECTIFIER
D7506 RP10G400V.1A
D7507 FCH20A10
D7609 D10SC9M RECTIFIER
D7610 FCQ20A04 RECTIFIER
D7815 F1AP20FS RECTIFIER
D7807 FCQ20A04 RECTIFIER
D7808 FCQ20A04 RECTIFIER
D7809 D10SC4MR RECTIFIER
D7812 D1FS4A
D7813 1SS256 DROP
GB
no mark:Video
(REG, V REF, DC-DC)
B-SS1647<09.>-GB


F7061
F7031
F7001
GAA
SONY
1-670-898-13
CN7001
E
D
C
B
A
1
2
3
4

GAA – B SIDE –

SUFFIX ; -13


F7001
CAUTION
250V T5AH. FOR CONTINUED PROTECTION AGINST RISK OF FIRE REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE.
F7031
CAUTION
F7061
CAUTION
>EP- (GW+GN) <
A-1316-556-A
1-670-898-13
GAA
SONY
CN7001
A
B
C
D
E
1
2
3
4

GAA – A SIDE –

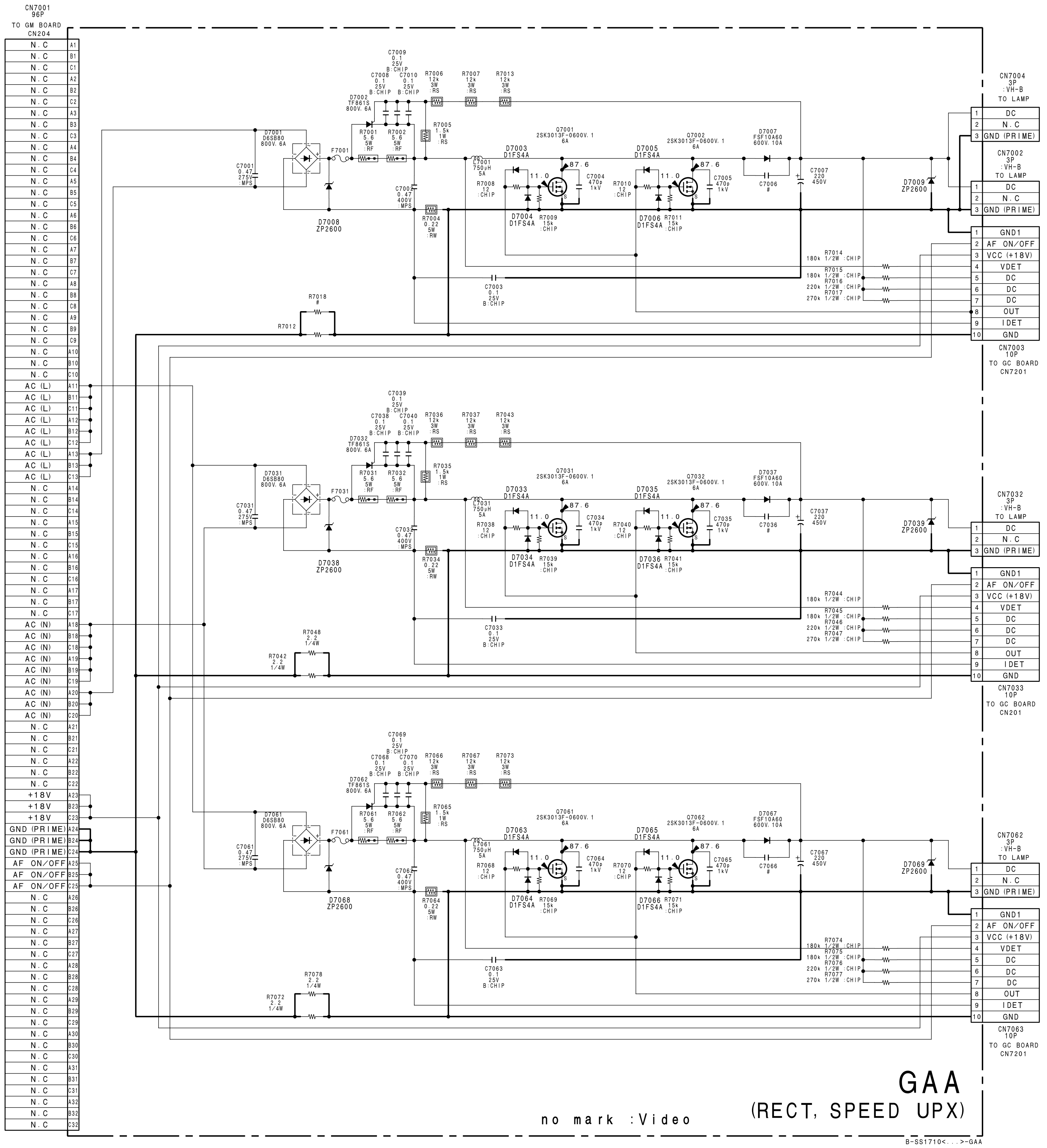
SUFFIX ; -13

—
GAA
—
1-670-898-13

D7001	*A-1	Q7001	*A-3
D7002	*A-1	Q7002	*A-3
D7003	*A-3	Q7031	*C-3
D7004	*A-3	Q7032	*B-3
D7005	*A-3	Q7061	*D-3
D7006	*A-1	Q7062	*D-3
D7007	*B-3		
D7008	*A-3		
D7009	*A-3		
D7031	*C-1		
D7032	*B-1		
D7033	*C-3		
D7034	*B-3		
D7035	*B-3		
D7036	*B-3		
D7037	*C-3		
D7038	*C-2		
D7039	*C-3		
D7061	*D-1		
D7062	*D-1		
D7063	*D-3		
D7064	*D-3		
D7065	*D-3		
D7066	*D-3		
D7067	*D-3		
D7068	*D-1		
D7069	*D-3		

*:B Side mount

• Refer to page 10-70 for Printed Wiring Board

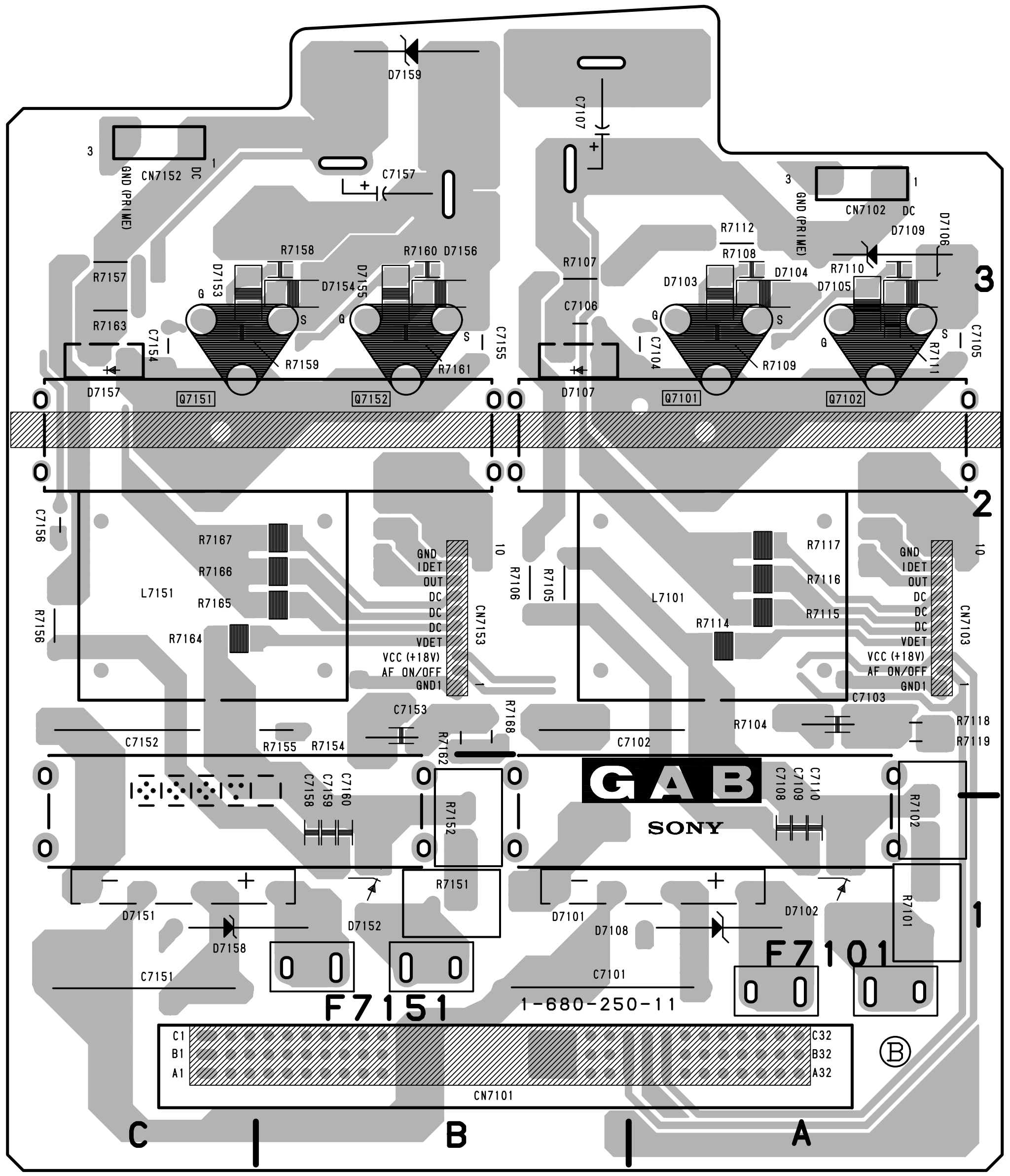

CN7001
96P
TO GM BOARD
CN204
N.C
AC (L)
AC (N)
+18V
GND (PRIME)
AF ON/OFF
D7001 D6SB80 800V. 6A
D7002 TF861S 800V. 6A
F7001
C7001 0.47 275V MPS
C7002 0.47 400V MPS
D7008 ZP2600
Q7001 2SK3013F-0600V. 1 6A
Q7002 2SK3013F-0600V. 1 6A
D7003 D1FS4A
D7005 D1FS4A
D7007 FSF10A60 600V. 10A
C7007 220 450V
D7009 ZP2600
R7012
R7018
CN7004 3P :VH-B TO LAMP
DC
N.C
GND (PRIME)
CN7002 3P :VH-B TO LAMP
GND1
AF ON/OFF
VCC (+18V)
VDET
DC
OUT
IDET
GND
CN7003 10P TO GC BOARD CN7201
CN7032 3P :VH-B TO LAMP
CN7033 10P TO GC BOARD CN201
CN7062 3P :VH-B TO LAMP
CN7063 10P TO GC BOARD CN7201
no mark :Video
GAA
(RECT, SPEED UPX)
B-SS1710<...>-GAA

GAB GAB

—
GAB
—
1-880-250-11

D7101	* A-1
D7102	* A-1
D7103	* A-3
D7104	* A-3
D7105	* A-3
D7106	* A-3
D7107	* B-3
D7108	* A-1
D7109	* A-3
D7151	* C-1
D7152	* B-1
D7153	* C-3
D7154	* B-3
D7155	* B-3
D7156	* B-2
D7157	* C-3
D7158	* B-3
D7159	* B-3
Q7101	* A-3
Q7102	* A-3
Q7151	* B-2
Q7152	* B-2

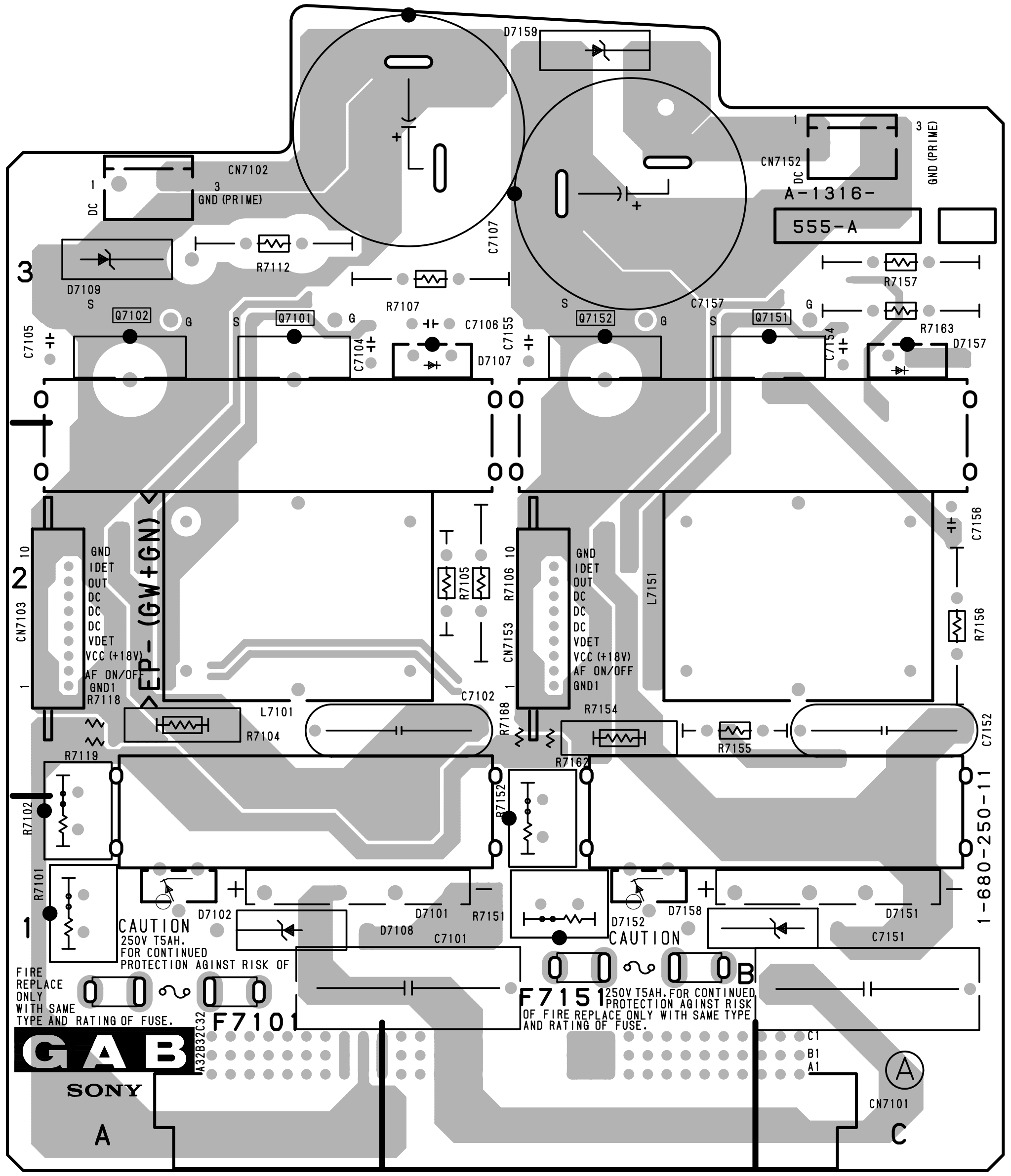
*:B Side mount



CN7152
GND (PRIME)
DC
C7157
D7159
C7107
CN7102
R7158
R7160
D7156
R7112
R7108
D7109
D7106
D7153
D7154
D7155
R7107
C7106
D7103
D7104
R7110
D7105
R7157
R7163
C7154
R7159
R7161
C7155
C7104
R7109
R7111
C7105
D7157
Q7151
Q7152
D7107
Q7101
Q7102
3
2
1
C7156
R7158
R7167
R7166
R7165
L7151
R7164
GND
IDET
OUT
DC
VDET
VCC (+18V)
AF ON/OFF
GND1
CN7153
R7106
R7105
R7117
R7116
R7115
R7114
L7101
CN7103
C7153
C7103
R7104
R7118
R7119
C7152
R7155
R7154
R7168
R7162
C7102
C7158
C7159
C7160
R7152
C7108
C7109
C7110
R7102
GAB
SONY
D7151
D7158
D7152
R7151
D7101
D7108
D7102
R7101
C7151
C7101
F7151
F7101
1-680-250-11
C1
B1
A1
C32
B32
A32
CN7101
B
C
B
A

GAB – B SIDE –

SUFFIX ; -11



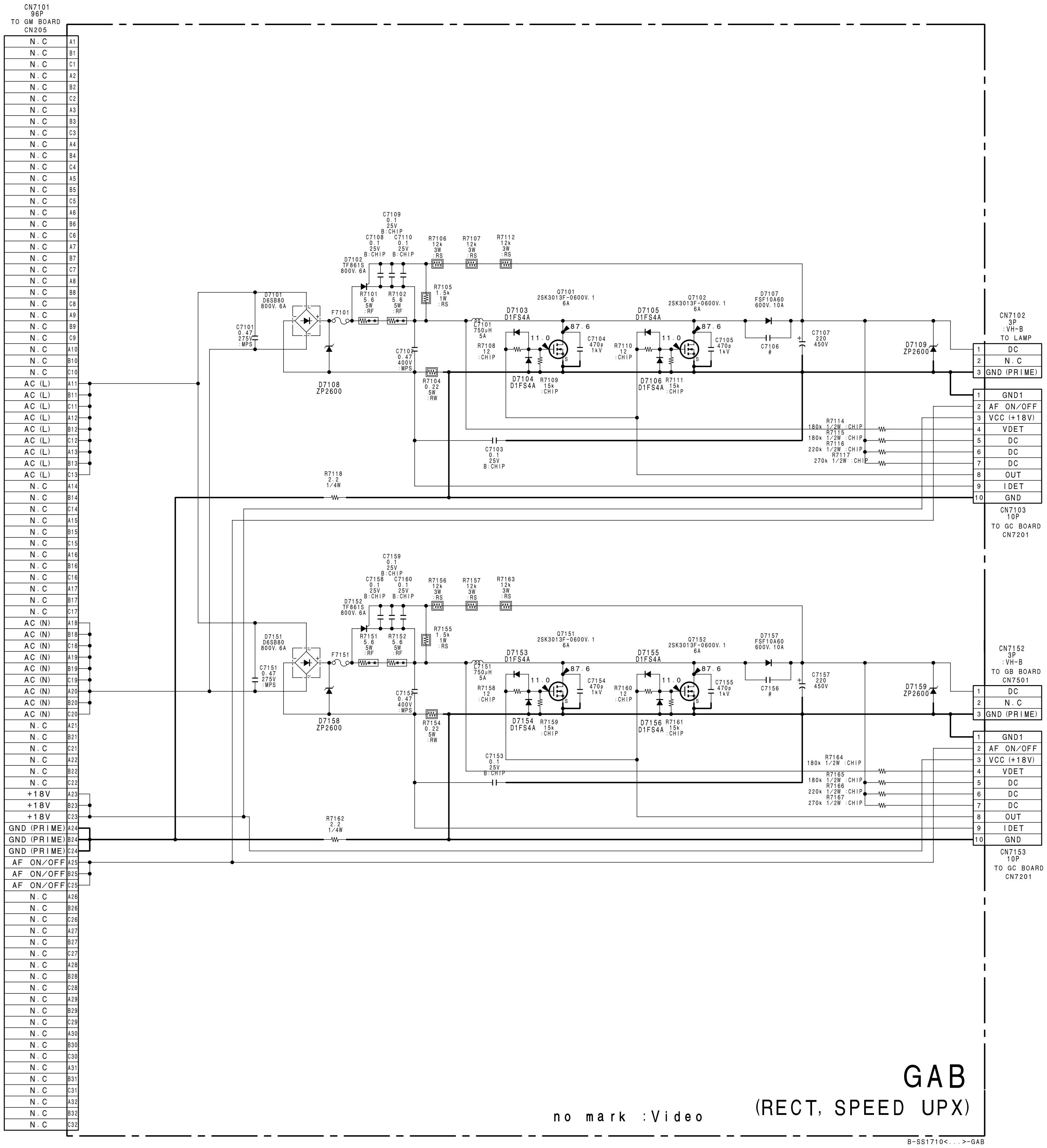
D7159
CN7102
GND (PRIME)
DC
C7107
CN7152
A-1316-
555-A
3
2
1
D7109
R7112
R7107
R7157
R7163
Q7102
Q7101
C7105
C7104
C7106
D7107
C7155
C7157
Q7152
Q7151
C7154
D7157
CN7103
EP- (GW+GN)
R7105
R7106
CN7153
GND
IDET
OUT
DC
VDET
VCC (+18V)
AF ON/OFF
GND1
R7118
L7101
C7102
R7104
R7119
R7168
R7154
L7151
R7155
C7156
R7156
C7152
R7162
R7152
R7102
R7101
D7102
D7108
C7101
D7101
R7151
D7152
D7158
C7151
D7151
CAUTION
250V T5AH.
FOR CONTINUED
PROTECTION AGINST RISK OF
FIRE
REPLACE
ONLY
WITH SAME
TYPE AND RATING OF FUSE.
F7101
F7151
250V T5AH. FOR CONTINUED PROTECTION AGINST RISK OF FIRE REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE.
A32 B32 C32
C1
B1
A1
CN7101
GAB
SONY
1-680-250-11
A
C
B

GAB – A SIDE –

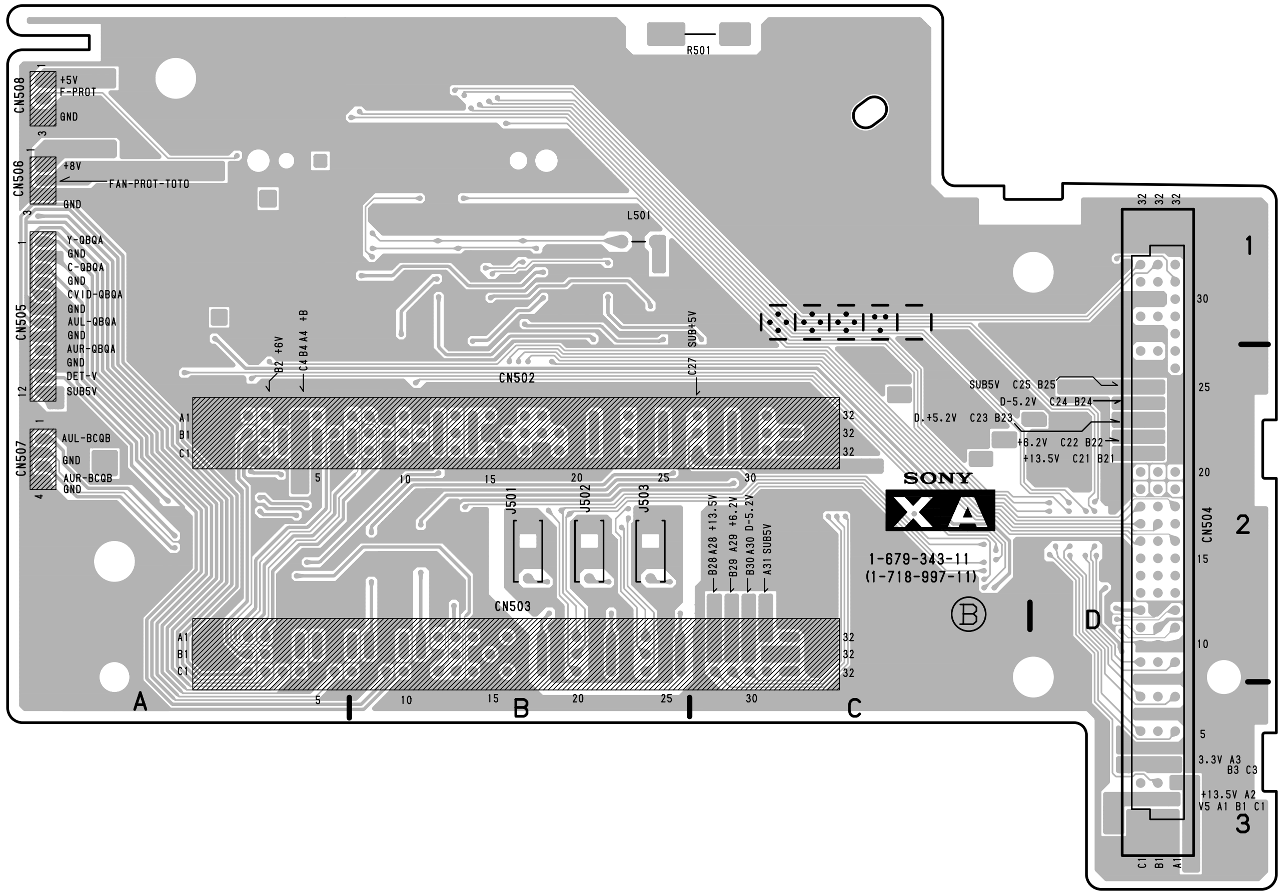
SUFFIX ; -11

http://getMANUAL.com

- Refer to page 10-72 for Printed Wiring Board

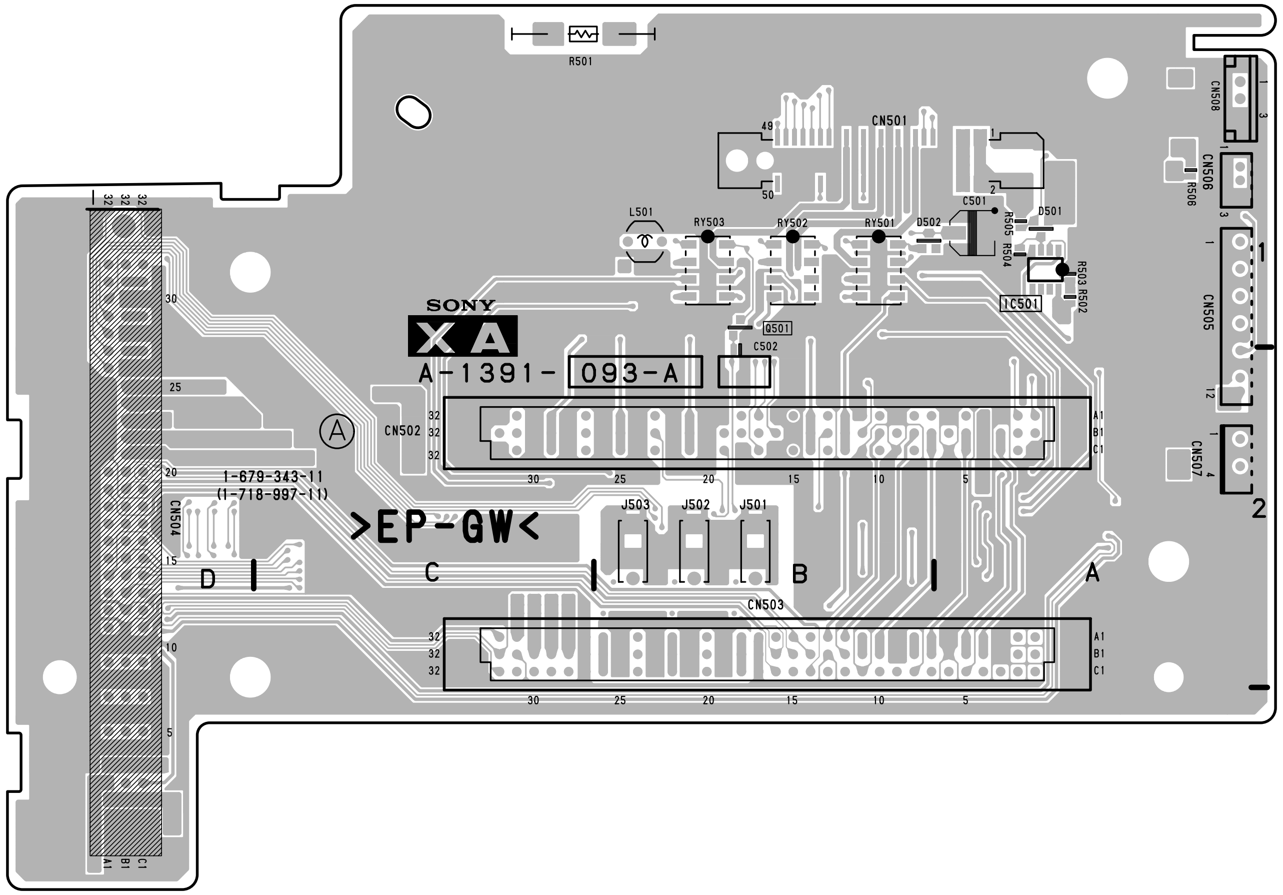

CN7101
96P
TO GM BOARD
CN205
N.C A1
N.C B1
N.C C1
N.C A2
N.C B2
N.C C2
N.C A3
N.C B3
N.C C3
N.C A4
N.C B4
N.C C4
N.C A5
N.C B5
N.C C5
N.C A6
N.C B6
N.C C6
N.C A7
N.C B7
N.C C7
N.C A8
N.C B8
N.C C8
N.C A9
N.C B9
N.C C9
N.C A10
N.C B10
N.C C10
AC (L) A11
AC (L) B11
AC (L) C11
AC (L) A12
AC (L) B12
AC (L) C12
AC (L) A13
AC (L) B13
AC (L) C13
N.C A14
N.C B14
N.C C14
N.C A15
N.C B15
N.C C15
N.C A16
N.C B16
N.C C16
N.C A17
N.C B17
N.C C17
AC (N) A18
AC (N) B18
AC (N) C18
AC (N) A19
AC (N) B19
AC (N) C19
AC (N) A20
AC (N) B20
AC (N) C20
N.C A21
N.C B21
N.C C21
N.C A22
N.C B22
N.C C22
+18V A23
+18V B23
+18V C23
GND (PRIME) A24
GND (PRIME) B24
GND (PRIME) C24
AF ON/OFF A25
AF ON/OFF B25
AF ON/OFF C25
N.C A26
N.C B26
N.C C26
N.C A27
N.C B27
N.C C27
N.C A28
N.C B28
N.C C28
N.C A29
N.C B29
N.C C29
N.C A30
N.C B30
N.C C30
N.C A31
N.C B31
N.C C31
N.C A32
N.C B32
N.C C32
C7109 0.1 25V B:CHIP
C7108 0.1 25V B:CHIP
C7110 0.1 25V B:CHIP
D7102 TF861S 800V, 6A
R7106 12k 3W :RS
R7107 12k 3W :RS
R7112 12k 3W :RS
D7101 D6SB80 800V, 6A
C7101 0.47 275V :MPS
F7101
R7101 5.6 5W :RF
R7102 5.6 5W :RF
R7105 1.5k 1W :RS
Q7101 2SK3013F-0600V, 1 6A
Q7102 2SK3013F-0600V, 1 6A
D7103 D1FS4A
D7105 D1FS4A
L7101 750μH 5A
R7108 12 :CHIP
11.0
87.6
C7104 470p 1kV
R7110 12 :CHIP
11.0
87.6
C7105 470p 1kV
D7107 FSF10A60 600V, 10A
C7106 #
C7107 220 450V
C7102 0.47 400V :MPS
R7104 0.22 5W :RW
D7108 ZP2600
D7104 D1FS4A
R7109 15k :CHIP
D7106 D1FS4A
R7111 15k :CHIP
D7109 ZP2600
C7103 0.1 25V B:CHIP
R7114 180k 1/2W :CHIP
R7115 180k 1/2W :CHIP
R7116 220k 1/2W :CHIP
R7117 270k 1/2W :CHIP
R7118 2.2 1/4W
CN7102 3P :VH-B TO LAMP
1 DC
2 N.C
3 GND (PRIME)
1 GND1
2 AF ON/OFF
3 VCC (+18V)
4 VDET
5 DC
6 DC
7 DC
8 OUT
9 IDET
10 GND
CN7103 10P TO GC BOARD CN7201
C7159 0.1 25V B:CHIP
C7158 0.1 25V B:CHIP
C7160 0.1 25V B:CHIP
D7152 TF861S 800V, 6A
R7156 12k 3W :RS
R7157 12k 3W :RS
R7163 12k 3W :RS
D7151 D6SB80 800V, 6A
C7151 0.47 275V :MPS
F7151
R7151 5.6 5W :RF
R7152 5.6 5W :RF
R7155 1.5k 1W :RS
Q7151 2SK3013F-0600V, 1 6A
Q7152 2SK3013F-0600V, 1 6A
D7153 D1FS4A
D7155 D1FS4A
L7151 750μH 5A
R7158 12 :CHIP
11.0
87.6
C7154 470p 1kV
R7160 12 :CHIP
11.0
87.6
C7155 470p 1kV
D7157 FSF10A60 600V, 10A
C7156 #
C7157 220 450V
C7152 0.47 400V :MPS
R7154 0.22 5W :RW
D7158 ZP2600
D7154 D1FS4A
R7159 15k :CHIP
D7156 D1FS4A
R7161 15k :CHIP
D7159 ZP2600
C7153 0.1 25V B:CHIP
R7164 180k 1/2W :CHIP
R7165 180k 1/2W :CHIP
R7166 220k 1/2W :CHIP
R7167 270k 1/2W :CHIP
R7162 2.2 1/4W
CN7152 3P :VH-B TO GB BOARD CN7501
1 DC
2 N.C
3 GND (PRIME)
1 GND1
2 AF ON/OFF
3 VCC (+18V)
4 VDET
5 DC
6 DC
7 DC
8 OUT
9 IDET
10 GND
CN7153 10P TO GC BOARD CN7201
no mark :Video
GAB
(RECT, SPEED UPX)
B-SS1710<...>-GAB

XA XA


CN508
+5V
F-PROT
GND
CN506
+8V
FAN-PROT-TOTO
GND
CN505
Y-QBQA
C-QBQA
CVID-QBQA
AUL-QBQA
AUR-QBQA
DET-V
SUB5V
CN507
AUL-BCQB
AUR-BCQB
GND
R501
L501
CN502
CN503
CN504
J501
J502
J503
SUB5V C25 B25
D-5.2V C24 B24
D-+5.2V C23 B23
+6.2V C22 B22
+13.5V C21 B21
3.3V A3 B3 C3
+13.5V A2
V5 A1 B1 C1
SONY
XA
1-679-343-11
(1-718-997-11)
Ⓑ
A
B
C
D
1
2
3

XA – B SIDE –

SUFFIX ; -11


R501
CN501
49
50
L501
RY503
RY502
RY501
D502
D501
C501
R505
R504
R503
R502
IC501
Q501
C502
CN508
CN506
R506
CN505
CN507
SONY
XA
A-1391-093-A
Ⓐ
CN502
CN503
CN504
J503
J502
J501
1-679-343-11
(1-718-997-11)
>EP-GW<
A
B
C
D
1
2

XA – A SIDE –

SUFFIX ; -11

- Refer to page 10-74 for Printed Wiring Board

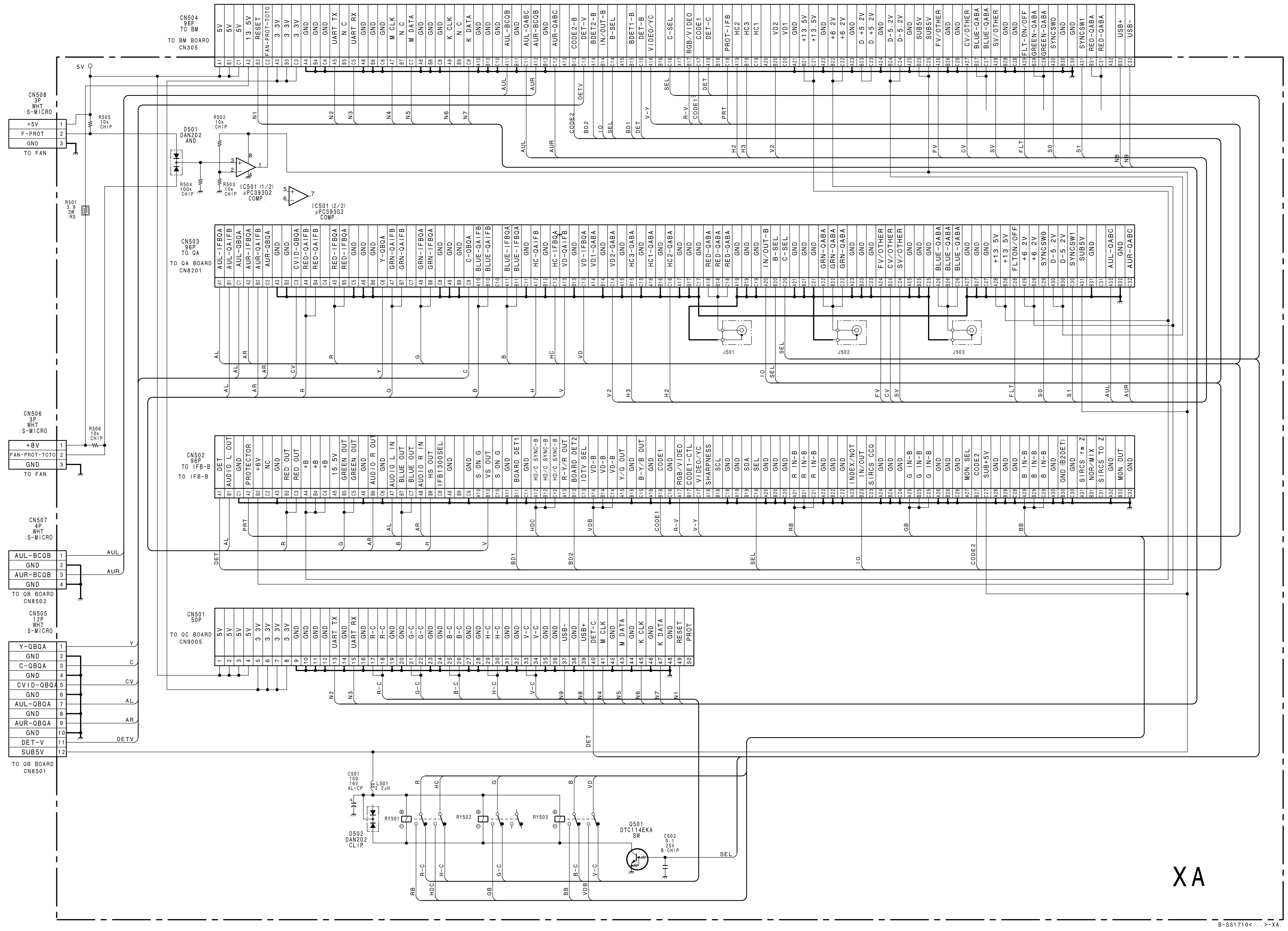
1

2

3

4

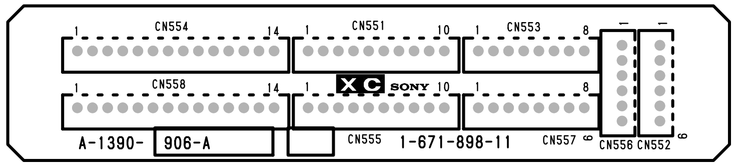
5


CN504
96P
TO BM
TO BM BOARD
CN305
CN508
3P
WHT
:S-MICRO
+5V
F-PROT
GND
TO FAN
D501
DAN202
AND
R502
10k
:CHIP
R505
10k
:CHIP
R504
100k
:CHIP
R503
10k
:CHIP
IC501 (1/2)
μPC393G2
COMP
IC501 (2/2)
μPC393G2
COMP
R501
3.9
3W
:RS
CN503
96P
TO QA
TO QA BOARD
CN8201
J501
J502
J503
CN506
3P
WHT
:S-MICRO
+8V
FAN-PROT-TOTO
GND
TO FAN
R506
10k
CHIP
CN502
96P
TO IFB-B
TO IFB-B
CN507
4P
WHT
:S-MICRO
AUL-BCQB
GND
AUR-BCQB
GND
TO QB BOARD
CN8502
CN505
12P
WHT
:S-MICRO
Y-QBQA
GND
C-QBQA
GND
CVID-QBQA
GND
AUL-QBQA
GND
AUR-QBQA
GND
DET-V
SUB5V
TO QB BOARD
CN8501
CN501
50P
TO QC BOARD
CN9005
C501
100
16V
AL-CP
L501
2.2μH
D502
DAN202
CLIP
RY501
RY502
RY503
Q501
DTC114EKA
SW
C502
0.1
25V
B:CHIP
XA
B-SS1710<...>-XA.

VPL-FE110U/FE110M

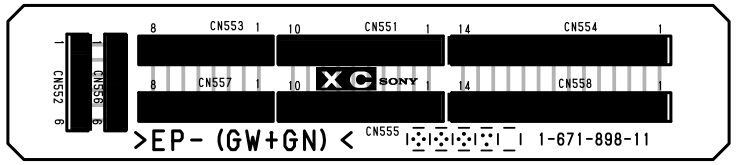
A B C D E F G H

XB, XC


CN554
CN551
CN553
CN558
XC SONY
A-1390- 906-A
CN555
1-671-898-11
CN557
CN556
CN552

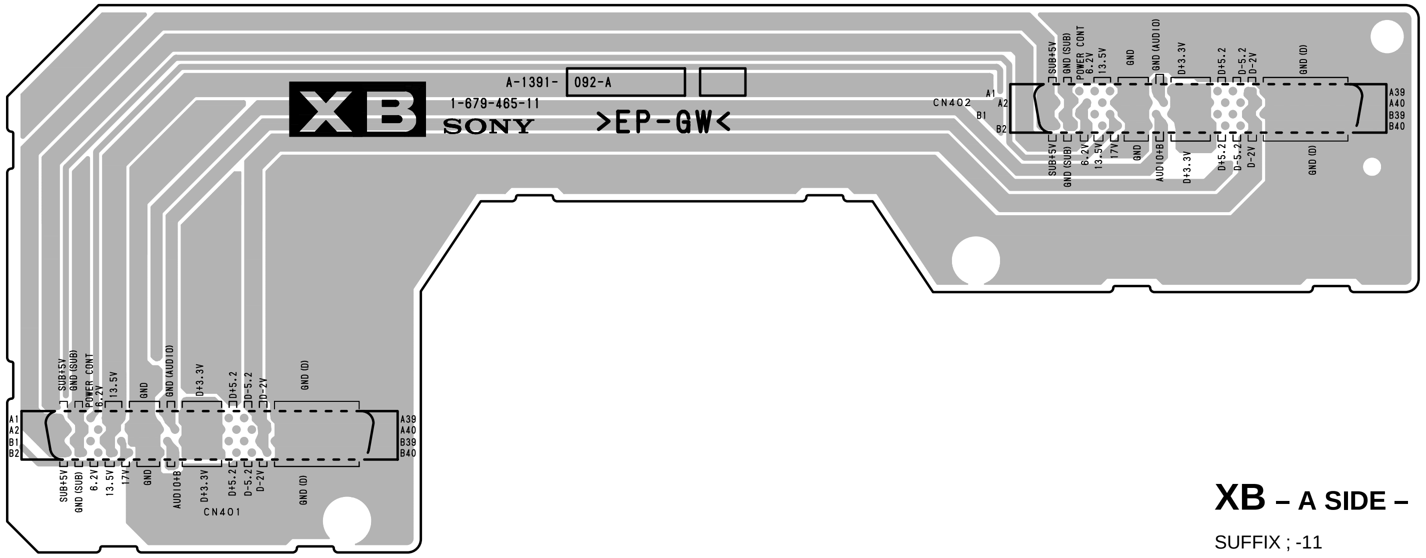
XC – A SIDE –

SUFFIX ; -11


CN553
CN551
CN554
CN552
CN556
CN557
XC SONY
CN558
>EP- (GW+GN) <
CN555
1-671-898-11

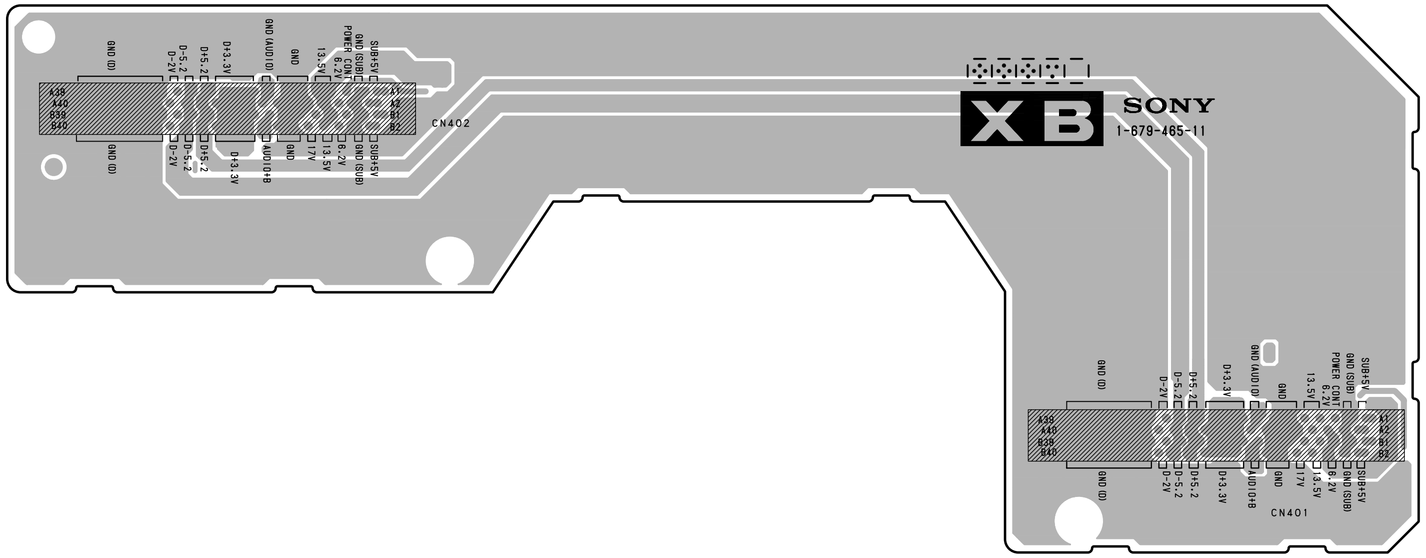
XC – B SIDE –

SUFFIX ; -11


XB
SONY
A-1391- 092-A
1-679-485-11
>EP-GW<
CN402
CN401

XB – A SIDE –

SUFFIX ; -11

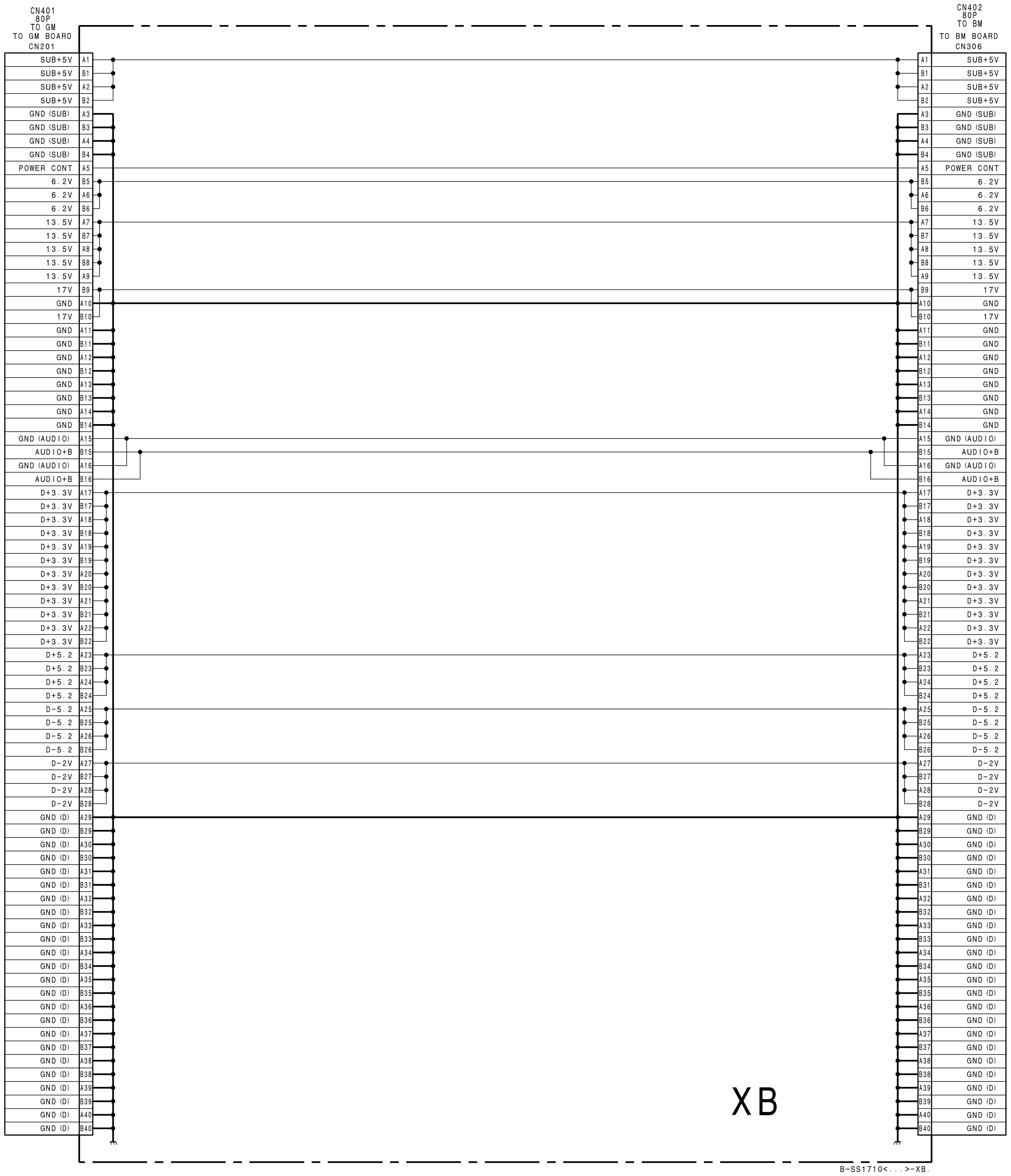

XB
SONY
1-679-485-11
CN402
CN401

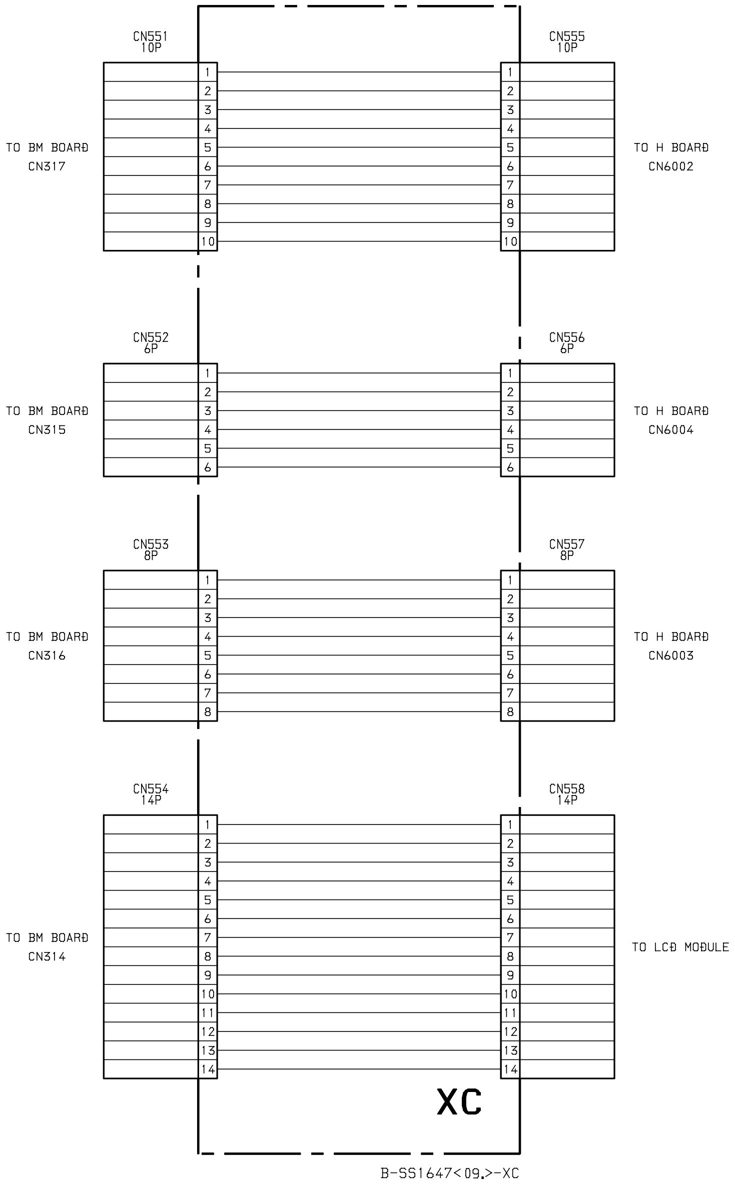
XB – B SIDE –

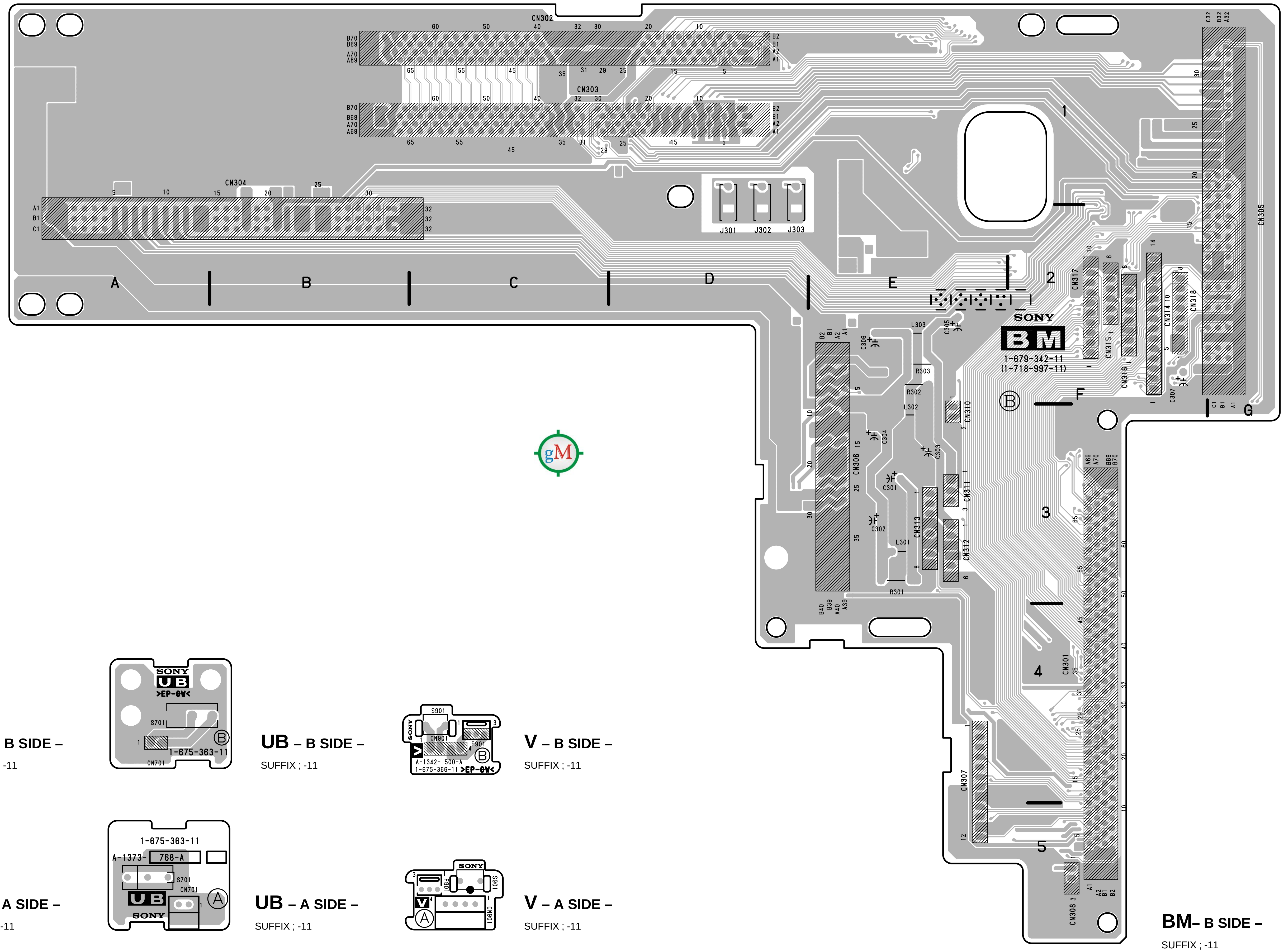
SUFFIX ; -11

10-76

- Refer to page 10-76 for Printed Wiring Board

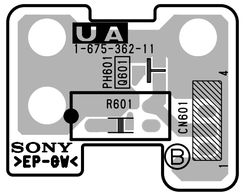

CN401
80P
TO GM
TO GM BOARD
CN201
CN402
80P
TO BM
TO BM BOARD
CN306
SUB+5V
GND (SUB)
POWER CONT
6.2V
13.5V
17V
GND
GND (AUDIO)
AUDIO+B
D+3.3V
D+5.2
D-5.2
D-2V
GND (D)
XB
B-SS1710<...>-XB.


CN551
10P
CN555
10P
TO BM BOARD
CN317
TO H BOARD
CN6002
CN552
6P
CN556
6P
TO BM BOARD
CN315
TO H BOARD
CN6004
CN553
8P
CN557
8P
TO BM BOARD
CN316
TO H BOARD
CN6003
CN554
14P
CN558
14P
TO BM BOARD
CN314
TO LCD MODULE
XC
B-SS1647<09,>-XC


CN302
CN303
CN304
CN305
CN306
CN307
CN301
CN308
CN310
CN311
CN312
CN313
CN314
CN315
CN316
CN317
CN318
J301
J302
J303
A
B
C
D
E
F
G
1
2
3
4
5
SONY
BM
1-679-342-11
(1-718-997-11)
L301
L302
L303
R301
R302
R303
C301
C302
C303
C304
C305
C306
C307

BM– B SIDE –

SUFFIX ; -11


UA
1-675-362-11
PH601
D601
R601
CN601
SONY
>EP-ØW<
B

UA – B SIDE –

SUFFIX ; -11

SONY
UB
>EP-ØW<
S701
1-675-363-11
CN701
B

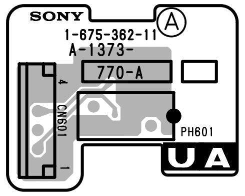
UB – B SIDE –

SUFFIX ; -11

S901
CN901
F901
SONY
V
A-1342-500-A
1-675-366-11 >EP-ØW<
B

V – B SIDE –

SUFFIX ; -11


SONY
A
1-675-362-11
A-1373-
770-A
CN601
PH601
UA

UA – A SIDE –

SUFFIX ; -11

1-675-363-11
A-1373-
768-A
S701
CN701
UB
SONY
A

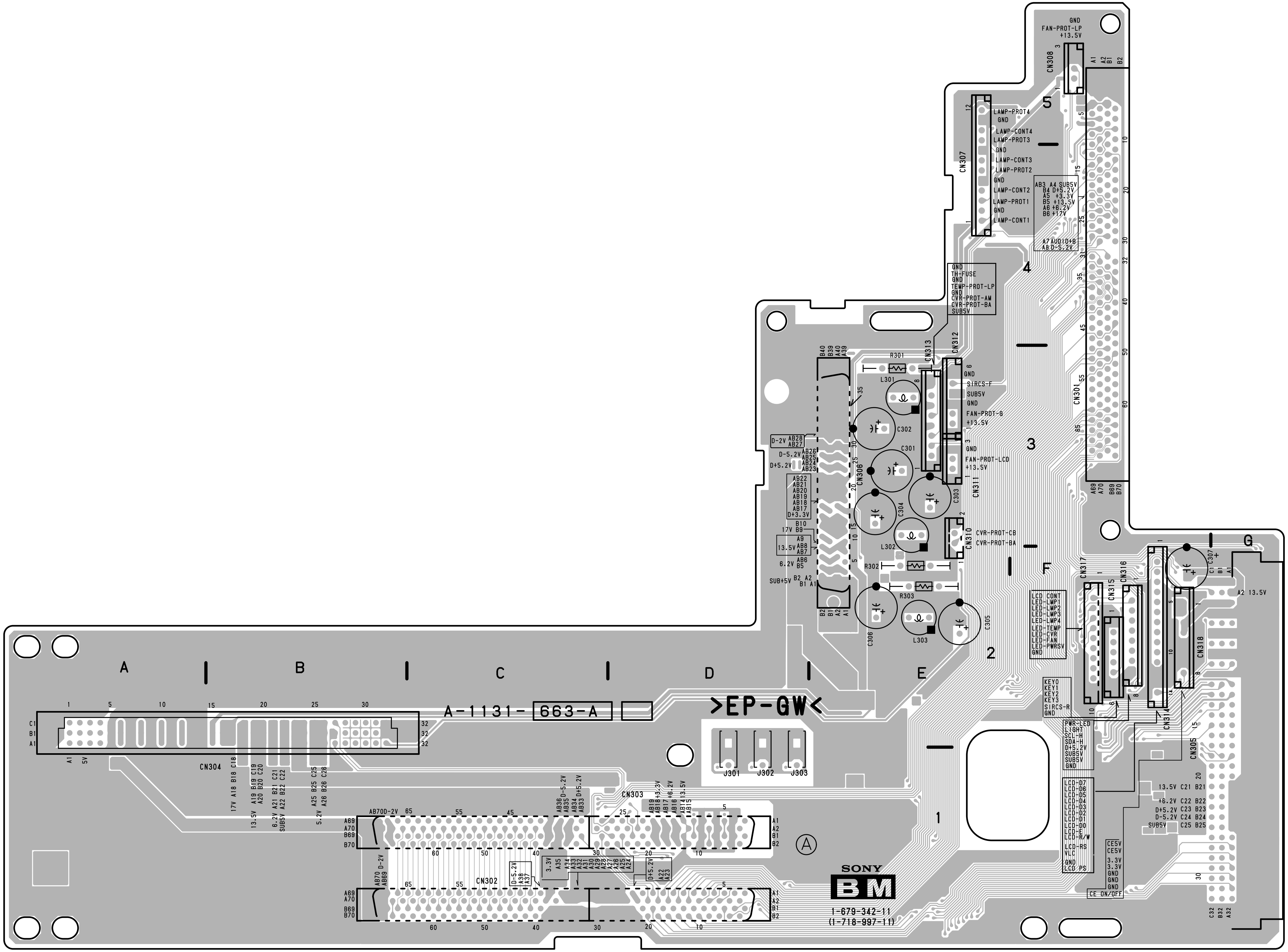
UB – A SIDE –

SUFFIX ; -11

SONY
F901
S901
CN901
V
A

V – A SIDE –

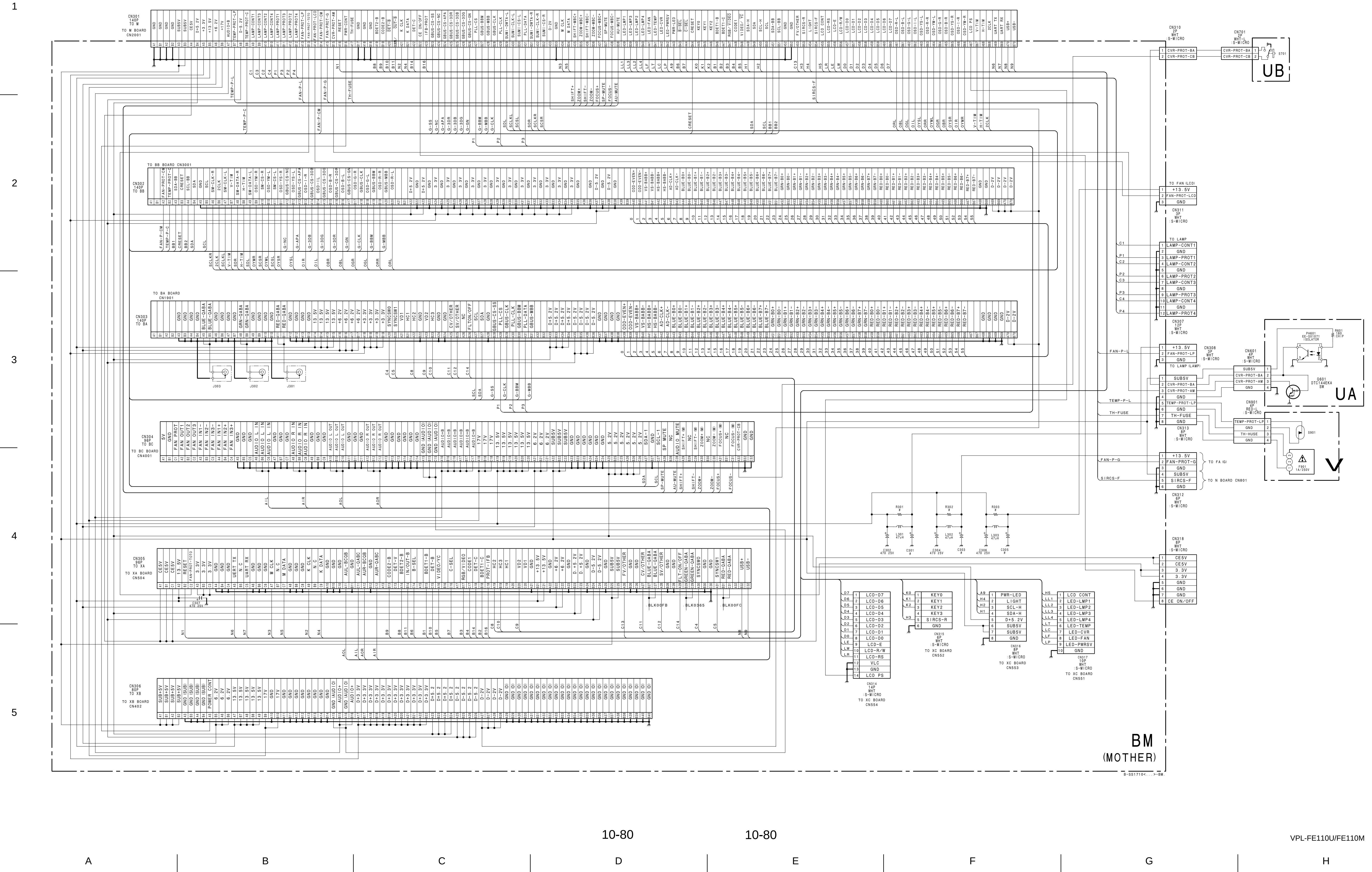
SUFFIX ; -11


A
B
C
D
E
F
G
1
2
3
4
5
A-1131-663-A
>EP-GW<
SONY
BM
1-679-342-11
(1-718-997-11)
CN301
CN302
CN303
CN304
CN305
CN306
CN307
CN308
CN310
CN311
CN312
CN313
CN314
CN315
CN316
CN317
CN318
J301
J302
J303
C301
C302
C303
C304
C305
C306
C307
L301
L302
L303
R301
R302
R303
GND
FAN-PROT-LP
+13.5V
LAMP-PROT4
LAMP-CONT4
LAMP-PROT3
LAMP-CONT3
LAMP-PROT2
LAMP-CONT2
LAMP-PROT1
LAMP-CONT1
TH-FUSE
TEMP-PROT-LP
CVR-PROT-AW
CVR-PROT-BA
SUB5V
SIRCS-F
FAN-PROT-G
FAN-PROT-LCD
CVR-PROT-CB
LCD CONT
LED-LMP1
LED-LMP2
LED-LMP3
LED-LMP4
LED-TEMP
LED-CVR
LED-FAN
LED-PWRSV
KEY0
KEY1
KEY2
KEY3
SIRCS-R
PWR-LED
LIGHT
SCL-H
SDA-H
D+5.2V
LCD-D7
LCD-D6
LCD-D5
LCD-D4
LCD-D3
LCD-D2
LCD-D1
LCD-D0
LCD-E
LCD-R/W
LCD-RS
VLC
LCD PS
CE5V
3.3V
CE ON/OFF
13.5V C21 B21
+6.2V C22 B22
D+5.2V C23 B23
D-5.2V C24 B24
SUB5V C25 B25
A2 13.5V
D-2V
D-5.2V
D+3.3V
17V
13.5V
6.2V
SUB+5V
AB3 A4 SUB5V
B4 D+5.2V
A5 +3.3V
B5 +13.5V
A6 +6.2V
B6 +17V
A7 AUDIO+B
A8 D-5.2V

BM – A SIDE –

SUFFIX ; -11

• Refer to page 10-64,10-65 for Printed Wiring Board


CN301 140P TO M TO M BOARD CN2001
CN302 140P TO BB
TO BB BOARD CN3001
TO BA BOARD CN1901
CN303 140P TO BA
CN304 96P TO BC TO BC BOARD CN4001
CN305 96P TO XA TO XA BOARD CN504
CN306 80P TO XB TO XB BOARD CN402
CN310 2P WHT S-MICRO
CN701 2P WHT-L S-MICRO
S701
UB
TO FAN (LCD)
CN311 3P WHT S-MICRO
TO LAMP
CN307 12P WHT S-MICRO
CN308 3P WHT S-MICRO
TO LAMP (LAMP)
CN601 4P WHT S-MICRO
PH601
Q601
UA
CN901 4P RED-L S-MICRO
CN313 8P WHT S-MICRO
S901
F901
V
TO FA (G)
TO N BOARD CN801
CN312 6P WHT S-MICRO
CN318 8P WHT S-MICRO
CN314 14P WHT S-MICRO TO XC BOARD CN554
CN315 6P WHT S-MICRO TO XC BOARD CN552
CN316 8P WHT S-MICRO TO XC BOARD CN553
CN317 10P WHT S-MICRO TO XC BOARD CN551
J303
J302
J301
BM
(MOTHER)
B-SS1710<...>-BM.
1
2
3
4
5
A
B
C
D
E
F
G
H

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer :

Check the metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 3.5 mA. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 5.25 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 20 V AC range are suitable. (See Fig. A)

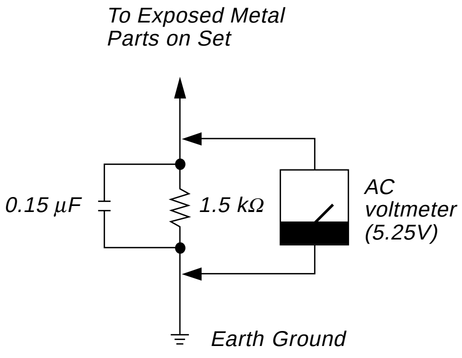


Fig A. Using an AC voltmeter to check AC leakage.

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